

GAO

Report to the Subcommittee on Oversight
of Government Management, the Federal
Workforce, and the District of Columbia,
Committee on Homeland Security and
Governmental Affairs, U.S. Senate

June 2007

DEFENSE LOGISTICS

Efforts to Improve Distribution and Supply Support for Joint Military Operations Could Benefit from a Coordinated Management Approach



G A O

Accountability * Integrity * Reliability

| Report Documentation Page | | | | Form Approved OMB No. 0704-0188 | |
|--|------------------------------------|-------------------------------------|---|---|---------------------------------|
| Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. | | | | | |
| 1. REPORT DATE JUN 2007 | | 2. REPORT TYPE | | 3. DATES COVERED 00-00-2007 to 00-00-2007 | |
| 4. TITLE AND SUBTITLE Defense Logistics. Efforts to Improve Distribution and Supply Support for Joint Military Operations Could Benefit from a Coordinated Approach | | | | 5a. CONTRACT NUMBER | |
| | | | | 5b. GRANT NUMBER | |
| | | | | 5c. PROGRAM ELEMENT NUMBER | |
| 6. AUTHOR(S) | | | | 5d. PROJECT NUMBER | |
| | | | | 5e. TASK NUMBER | |
| | | | | 5f. WORK UNIT NUMBER | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Government Accountability Office, 441 G Street NW, Washington, DC, 20548 | | | | 8. PERFORMING ORGANIZATION REPORT NUMBER | |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) | | | | 10. SPONSOR/MONITOR'S ACRONYM(S) | |
| | | | | 11. SPONSOR/MONITOR'S REPORT NUMBER(S) | |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited | | | | | |
| 13. SUPPLEMENTARY NOTES | | | | | |
| 14. ABSTRACT | | | | | |
| 15. SUBJECT TERMS | | | | | |
| 16. SECURITY CLASSIFICATION OF: | | | 17. LIMITATION OF ABSTRACT Same as Report (SAR) | 18. NUMBER OF PAGES 64 | 19a. NAME OF RESPONSIBLE PERSON |
| a. REPORT unclassified | b. ABSTRACT unclassified | c. THIS PAGE unclassified | | | |



Highlights of [GAO-07-807](#), a report to the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

During Operation Iraqi Freedom, the Army and the Marine Corps experienced problems with the delivery of supplies to the warfighter. Such problems highlight long-standing weaknesses in the Department of Defense's (DOD) supply chain management. DOD has identified joint theater logistics as a key effort aimed at improving distribution and supply support. GAO was asked to examine DOD's efforts to develop and implement joint theater logistics. GAO assessed (1) the extent to which DOD's approach to managing joint theater logistics departmentwide encompasses sound management principles and (2) the progress DOD has made in implementing joint theater logistics initiatives. GAO reviewed DOD documents and interviewed officials from the Joint Staff, services, agencies, and geographic combatant commands.

What GAO Recommends

GAO recommends DOD develop and implement a coordinated and comprehensive management approach to guide and oversee efforts across the department to improve distribution and supply support to U.S. forces in a joint theater. GAO also recommends that DLA assess opportunities to consolidate storage and shipping activities within all geographic combatant commands. DOD concurred with GAO's recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-07-807.

To view the full product, including the scope and methodology, click on the link above. For more information, contact William M. Solis at (202) 512-8365 or solisw@gao.gov.

DEFENSE LOGISTICS

Efforts to Improve Distribution and Supply Support for Joint Military Operations Could Benefit from a Coordinated Management Approach

What GAO Found

DOD has not developed a coordinated and comprehensive management approach to guide and oversee implementation of joint theater logistics across the department. Efforts to develop and implement joint theater logistics initiatives have been fragmented among various DOD components due largely to a lack of specific goals and strategies, accountability for achieving results, and outcome-oriented performance measures—key principles of sound management. Further complicating DOD's ability to adopt a coordinated and comprehensive management approach to joint theater logistics are the diffused organization of DOD's logistics operations, including separate funding and management of resources and systems, and changes in DOD's overall logistics transformation strategy. DOD is currently testing a new approach to managing joint capabilities and is considering a realignment of capabilities in its long-term logistics strategy, which could affect the future of joint theater logistics. Without a more coordinated and comprehensive approach to managing joint theater logistics, DOD lacks assurance that it is on the right path toward achieving this capability and that individual initiatives will collectively address gaps in logistics capabilities. Further, DOD will have difficulty achieving improvements in theater distribution and asset visibility associated with joint theater logistics.

DOD components have made progress developing and implementing joint theater logistics initiatives in the areas of distribution and supply support, but the department faces challenges that hinder its ability to realize the full benefits of these efforts. For example,

- While Joint Deployment Distribution Operations Centers have been established in each geographic combatant command to help manage supplies moving across the distribution system, senior commanders in Kuwait said achieving asset visibility has been difficult because of a lack of interoperability among information technology systems.
- Initiatives being developed to improve the coordination of surface transportation assets theaterwide also face challenges with issues of command and control, the availability of information technology tools, and potential duplication of responsibilities with other organizations.

Unless DOD successfully addresses these and other challenges GAO identified, the initiatives are not likely to significantly improve the ability of a joint force commander to effectively and efficiently direct logistics functions, including distribution and supply support activities, across the theater of operations to accomplish an assigned mission. Moreover, without addressing such challenges, DOD is likely to continue to experience some of the same types of distribution and asset visibility problems that have occurred during Operation Iraqi Freedom.

Contents

| | | |
|---------------|--|----------|
| Letter | | 1 |
| | Results in Brief | 3 |
| | Background | 6 |
| | DOD Has Not Developed a Coordinated and Comprehensive Management Approach to Joint Theater Logistics | 9 |
| | DOD Has Made Progress on Joint Theater Logistics Initiatives but Faces Challenges That Hinder Its Ability to Fully Realize the Benefits of These Efforts | 19 |
| | Conclusions | 51 |
| | Recommendations for Executive Action | 52 |
| | Agency Comments and Our Evaluation | 53 |
| | Scope and Methodology | 54 |

| | | |
|-------------------|--|-----------|
| Appendix I | Comments from the Department of Defense | 57 |
|-------------------|--|-----------|

| | | |
|--------------------|--|-----------|
| Appendix II | GAO Contact and Staff Acknowledgments | 59 |
|--------------------|--|-----------|

| | | |
|--------------|--|----|
| Table | | |
| | Table 1: Challenges Hindering DOD’s Ability to Fully Implement Joint Theater Logistics Initiatives | 19 |

| | | |
|----------------|---|----|
| Figures | | |
| | Figure 1: Recent Strategic Planning Documents Addressing DOD Logistics | 15 |
| | Figure 2: Military Storage Containers in Kuwait (October 2006) | 27 |
| | Figure 3: Views of Container and Yard Storage at Army General Support Warehouse, Camp Arifjan, Kuwait (October 2006) | 42 |
| | Figure 4: Exterior and Interior Views of Warehouses at the DLA Distribution Depot, Kuwait (October 2006) | 43 |
| | Figure 5: Continuum of Logistics Command and Control Options Included in the Joint Experimental Deployment and Support Initiative | 47 |

This is a work of the U.S. government and is not subject to copyright protection in the United States. It may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.



United States Government Accountability Office
Washington, DC 20548

June 29, 2007

The Honorable Daniel K. Akaka
Chairman
The Honorable George V. Voinovich
Ranking Member
Subcommittee on Oversight of Government Management, the Federal
Workforce, and the District of Columbia
Committee on Homeland Security and Governmental Affairs
United States Senate

The Department of Defense (DOD) experienced problems with logistics support and supply chain management during military operations in Iraq that impeded the timely delivery of supplies and contributed to shortages of items critical to the warfighter.¹ These problems—which affected both Army and Marine Corps ground forces—included an insufficient capability to provide support to combat forces during the early stages of the conflict, difficulties in distributing supplies within the theater of operations, and limitations in asset visibility.² Such problems also occurred during Operation Desert Shield/Desert Storm in 1991. During the 1990s, following the end of the Cold War, DOD reexamined the future threat environment that U.S. military forces could face and identified logistics capabilities that would be needed to support future military operations. One of these identified capabilities, joint theater logistics, is aimed at improving the ability of a joint force commander to direct various logistics functions, including distribution and supply support activities, across the theater of operations to accomplish an assigned mission.

Under DOD doctrine for conducting joint military operations, the joint force commander is ultimately responsible for synchronizing all aspects of

¹DOD defines logistics as the science of planning and carrying out the movement and maintenance of forces. Logistics includes six broad functional areas: supply, maintenance, transportation, civil engineering, health services, and other services. Supply chain management consists of processes and activities to purchase, produce, and deliver materiel—including ammunition, spare parts, fuel, food, water, clothing, personal equipment, and other items—to a force that is highly dispersed and mobile.

²DOD describes asset visibility as the ability to provide timely and accurate information on the location, quantity, condition, movement, and status of equipment and supplies.

logistics necessary to support the mission.³ However, the joint force commander relies on various DOD components, including the military services, Defense Logistics Agency (DLA), and U.S. Transportation Command, to provide the logistics resources and systems needed to support U.S. forces. Various provisions of Title 10, U.S. Code establish responsibilities and authorities for supplying and equipping the armed forces.⁴ These and other Title 10 functions are promulgated by DOD through directives.⁵ Implementing joint theater logistics involves harnessing these diffuse resources and systems, which are not integrated but rather separately funded and managed across DOD's components.

The Joint Staff Logistics Directorate is DOD's lead proponent for joint theater logistics, and this effort involves developing and implementing a number of initiatives across the department. DOD believes joint theater logistics will improve the distribution and visibility of assets in a theater of operations. For this reason, DOD has listed joint theater logistics as one of several key initiatives in its supply chain management improvement plan. Because of long-standing systemic weaknesses that have been identified in our previous reports, we have designated DOD's supply chain management as a high-risk area. In 2005, DOD developed the supply chain management improvement plan to place it on a path toward removing supply chain management from our high-risk list.

At your request, we have examined DOD's efforts to develop and implement joint theater logistics as part of its plans for improving logistics support and supply chain management. Specifically, this report assesses (1) the extent to which DOD's approach to managing joint theater logistics departmentwide encompasses sound management principles and (2) the progress DOD has made in implementing joint theater logistics initiatives in the areas of distribution and supply support.

³Joint Chiefs of Staff, Joint Publication 4-0, *Doctrine for Logistic Support of Joint Operations* (Apr. 6, 2000), p. I-3. (Hereafter cited as JCS Pub 4-0 (Apr. 6, 2000), p. XX).

⁴See 10 U.S.C. §§ 3013, 3062, 5013, 5062, 5063, 8013, and 8062.

⁵DOD Directive 5100.1, *Functions of the Department of Defense and Its Major Components* (Aug. 1, 2002) states that the military services are responsible for providing logistic support for service forces. DOD Directive 5105.22, *Defense Logistics Agency* (May 17, 2006), directs DLA, among other responsibilities and functions, to provide materiel commodities and supply chain management for items of supply and services. DOD Directive 5158.4, *United States Transportation Command* (Jan. 8, 1993), states that the command shall have combatant command over all transportation assets of the military departments, except for service-unique or theater-assigned assets.

To assess DOD's approach to managing joint theater logistics, we identified sound management principles based on prior work on organizational transformation and federal agency implementation of the Government Performance and Results Act.⁶ We reviewed doctrine, regulations, guidance, plans, briefings, status reports, and other documents related to the development of joint theater logistics, logistics strategic planning, and supply chain management, to include reports by various audit and non-audit organizations that have assessed DOD's logistics operations. We also interviewed officials from the Joint Staff and the Office of the Secretary of Defense who are involved with joint theater logistics and logistics transformation. To assess DOD's progress in implementing joint theater logistics initiatives, we visited the five geographic combatant commands, the subordinate unified command in Korea, military service component commands in three theaters, and operational units in Germany, Korea, and Kuwait. We met with military service officials at headquarters offices, as well as at selected commands and reserve components. We also visited U.S. Transportation Command, U.S. Joint Forces Command, and DLA to obtain information on specific initiatives. In addition, we attended the out-brief for an Army conference on theater opening, reviewed after-action reports from exercises testing the initiatives, and analyzed lessons learned reports from Operation Iraqi Freedom. We determined that the data we used were sufficiently reliable for our purposes. Additional information on our scope and methodology is provided at the end of this letter. We conducted our review from July 2006 to April 2007 in accordance with generally accepted government auditing standards.

Results in Brief

DOD has not developed a coordinated and comprehensive management approach to guide and oversee implementation of joint theater logistics across the department. Efforts to develop and implement joint theater logistics initiatives have been fragmented among various DOD components due largely to a lack of specific goals and strategies, accountability for achieving results, and outcome-oriented performance measures—key principles of sound management. While DOD has broadly defined joint theater logistics as an adaptive ability to anticipate and respond to emerging theater logistics and support requirements, it has not developed specific goals and strategies linked to this vision. In addition, DOD has not assigned accountability for achieving results under joint

⁶Pub. L. No. 103-62 (1993).

theater logistics and has not developed outcome-oriented performance measures that would enable the department to know whether its efforts are fully and effectively achieving a joint theater logistics capability. Furthermore, the diffused organization of DOD's logistics operations, including separate funding and management of resources and systems, complicates DOD's ability to adopt a coordinated and comprehensive management approach to developing and implementing joint theater logistics capabilities. A number of studies that have assessed DOD's logistics operations have recommended changes to DOD's organizational structure and control of resources for providing joint logistics support to military operations. Moreover, changes in DOD's overall logistics transformation strategy have hampered its ability to adopt a coordinated and comprehensive management approach to joint theater logistics. Over the years, DOD has made a number of attempts to articulate a long-term strategy to guide logistics transformation, including joint theater logistics, but progress on these efforts has been hindered by differing visions within the department. DOD is currently testing a new approach to managing joint capabilities and is considering a realignment of capabilities in its long-term logistics strategy—efforts that could affect the future of joint theater logistics. Under this realignment, joint theater logistics may cease to exist as a stand-alone capability area; however, the tenets of joint theater logistics would be retained, and the functional areas associated with joint theater logistics would be integrated within the broader joint logistics portfolio. Without a coordinated and comprehensive approach to managing joint theater logistics, DOD lacks assurance that it is on the right path toward achieving this capability and that individual initiatives will collectively address gaps in logistics capabilities. Further, DOD will have difficulty achieving the desired improvements in distribution and asset visibility associated with joint theater logistics as portrayed in the supply chain management improvement plan. We are recommending that DOD develop a coordinated and comprehensive management approach to guide and oversee efforts across the department to improve distribution and supply support in a joint theater. In commenting on a draft of this report, DOD concurred with our recommendation.

Although a coordinated and comprehensive management approach does not exist, DOD components have made progress developing and implementing joint theater logistics initiatives in the areas of distribution and supply support; however, the department faces a number of challenges that hinder its ability to fully realize the benefits of these efforts. A notable improvement has been the establishment of Joint Deployment Distribution Operations Centers that can help joint force commanders synchronize the arrival of supplies into a theater and assist in

other aspects of distribution and supply support. However, officials we interviewed said these operations centers alone will not resolve distribution and supply support problems. Other initiatives are at various stages of development and implementation as DOD experiments with new organizational arrangements, writes new concepts of operations, and revises doctrine. Despite this progress, DOD faces a number of challenges in fully developing and implementing joint theater logistics initiatives in the areas of distribution and supply support. Some of the challenges are as follows:

- DOD has established an expeditionary organization to manage the arrival of supplies moving into a theater during the early stages of a military operation, but Army officials have raised questions about the need for this new organization and the resources devoted to it, as well as about the command and control over this organization.
- While Joint Deployment Distribution Operations Centers have been established in each geographic combatant command to help manage supplies moving across the distribution system, senior commanders in Kuwait said achieving asset visibility has been difficult because of a lack of interoperability among information technology systems. We also found continuing problems with container management, although improvements have been made.
- Initiatives to improve the coordination of surface transportation assets theaterwide also face challenges with issues of command and control, the availability of information technology tools, and potential duplication of responsibilities with other organizations.
- Efforts to consolidate multiple storage and shipping activities in a theater have been implemented on a limited scale and additional consolidation opportunities may exist. During our site visits to Kuwait, we found that DLA and the Army were operating separate facilities that have the potential for consolidation, which could result in more efficient use of resources. Since our fieldwork was completed, DLA assessed ways to improve theater distribution and made recommendations to consolidate and relocate existing operations. Because this study was focused on the U.S. Central Command area of operations, we are recommending DLA undertake similar assessments within all the geographic combatant commands. In commenting on a draft of this report, DOD concurred with this recommendation.
- Finally, various options have emerged for improving the ability of a joint force commander to exercise command and control over joint theater

logistics functions. However, the military services have raised concerns about how their own roles and responsibilities for providing logistics support might be affected and have opposed expansion of the most robust command and control option that has emerged.

Unless DOD successfully addresses these challenges, the initiatives are not likely to significantly improve the ability of a joint force commander to harness the diffuse logistics resources and systems that exist within the department and effectively and efficiently direct logistics functions, including distribution and supply support activities, across the theater of operations to accomplish an assigned mission. Moreover, without addressing such challenges, DOD is likely to continue to experience some of the same types of distribution and asset visibility problems that occurred during Operation Iraqi Freedom.

Background

We have identified weaknesses in DOD's supply and distribution support in prior reports.⁷ These weaknesses have affected the department's ability to meet its goal of delivering the "right items to the right place at the right time" to support the deployment and sustainment of military forces. One problem with logistics support has been an insufficient capability to support combat forces during the early stages of a conflict. In Operation Iraqi Freedom, for example, DOD's priority was to move combat forces into the theater first, with logistics personnel arriving later in the deployment. Because of the shortage of support personnel in theater, the forces experienced delays in receiving, storing, and distributing supplies. For example, early in Operation Iraqi Freedom, inefficient packaging and palletizing of air shipments created supply backlogs in Kuwait that delayed the delivery of supplies shipped by air to units in Iraq. Once in theater, mixed shipments had to be manually opened, sorted, and re-palletized at theater distribution points, causing additional delays in getting repair parts to their end users. Another problem has been limited visibility of assets within the distribution system. Incomplete radio frequency identification tags required logistics personnel to spend time opening and sorting the

⁷GAO, *Defense Logistics: Preliminary Observations on the Effectiveness of Logistics Activities During Operation Iraqi Freedom*, [GAO-04-305R](#) (Washington, D.C.: Dec. 18, 2003); *Defense Logistics: Actions Needed to Improve the Availability of Critical Items during Current and Future Operations*, [GAO-05-275](#) (Washington, D.C.: Apr. 8, 2005); and *Defense Logistics: DOD Has Begun to Improve Supply Distribution Operations, but Further Actions Are Needed to Sustain These Efforts*, [GAO-05-775](#) (Washington, D.C.: Aug. 11, 2005).

shipments, significantly increasing processing time. Additionally, logistics systems used to order, track, and account for supplies were not well integrated and could not provide the essential information to effectively manage theater distribution. Thus, we have indicated that materiel distribution and asset visibility are two key focus areas critical to resolving these supply and distribution problems.

Joint theater logistics is one of seven future logistics capabilities that DOD has grouped under the term “focused logistics.” DOD has broadly defined joint theater logistics as an adaptive ability to anticipate and respond to emerging theater logistics and support requirements. In addition to joint theater logistics, focused logistics capabilities include joint deployment/rapid distribution, agile sustainment, operational engineering, force health protection, multinational logistics, and logistics information fusion. Together, these capabilities are intended to support an overall joint logistics capability, which DOD defines as “the capability to build effective, responsive, and efficient capacity into the deployment and sustainment pipeline; exercise control over the pipeline from end to end; and provide certainty to the supported joint force commander that forces, equipment, sustainment, and support will arrive where needed and on time.” According to DOD, focused logistics can be achieved by transforming logistics capabilities. To succeed, these focused logistics capabilities must be fully integrated, expeditionary, networked, decentralized, adaptable, and capable of decision superiority. Further, they must support future joint operations that are continuous and distributed across the full range of military operations.

Since the 1990s, DOD has developed various strategic planning documents, such as Joint Vision 2010, which included focused logistics as a needed capability. In 2000, DOD incorporated joint theater logistics and other focused logistics capabilities in joint warfighting doctrine. In 2003, the department approved the joint functional concept for focused logistics.⁸ In 2005, DOD issued its Focused Logistics Roadmap, presenting an “as is” compendium of programs and initiatives associated with the fiscal year 2006 President’s Budget and aligned under the focused logistics capabilities. The “as is” roadmap was intended to complement previously published logistics strategies and to represent the portfolio of programs and initiatives for which the Focused Logistics Functional Capabilities

⁸Joint functional concepts describe, and are used as a basis to shape, joint capabilities across the department.

Board⁹ and Joint Staff Logistics Directorate have primary oversight responsibility. In 2006, DOD approved the Joint Logistics (Distribution) Joint Integrating Concept,¹⁰ which complements the joint functional concept and calls for a joint deployment and distribution enterprise that is capable of providing joint force commanders with the ability to rapidly and effectively move and sustain forces in support of major combat operations or other joint operations. This document describes the enterprise as an integrated system of assets, materiel, personnel, leaders, organizations, procedures, tools, training, facilities, and doctrine that is expected to enable the joint force commander to minimize seams in the distribution pipeline. The joint deployment and distribution enterprise is expected to complement and augment service or joint force commander-unique distribution responsibilities and capabilities.

Distribution is part of the process and activities for managing the supply chain. According to joint doctrine, distribution is the process of synchronizing all elements of the logistics system to deliver the “right things” to the “right place” at the “right time.” DOD’s distribution system has two segments: strategic-national and theater. The strategic segment of this pipeline involves the movement of supplies from points outside a theater of military operations into the theater. The theater segment consists of distribution that occurs within a theater of military operations. The military services have the responsibility to organize, train, equip, and provide logistics support to their respective forces.¹¹ The military services and DLA manage supplies and provide for asset visibility. U.S. Transportation Command is responsible for providing transportation support, primarily strategic airlift and sealift, as well as in-transit asset visibility.¹² The geographic combatant commands are responsible for

⁹DOD has eight Functional Capabilities Boards that support the Joint Requirements Oversight Council and lead the capabilities assessment process.

¹⁰Whereas a joint functional concept is a broad description of joint force functions, a joint integrating concept is a description of narrowly focused operations or functions and is used to identify, describe, and apply specific capabilities.

¹¹See 10 U.S.C. §§ 3013, 3062, 5013, 5062, 5063, 8013, and 8062.

¹²DOD defines in-transit visibility as the near-real-time capability to track logistic resources and transportation assets while they are mobile and underway.

logistics in their theaters, to include managing and directing the theater distribution system.¹³

In September 2003, the Secretary of Defense assigned new organizational responsibilities in the logistics area, including designating the Under Secretary of Defense (Acquisition, Technology, and Logistics) as the Defense Logistics Executive, and the Commander, U.S. Transportation Command, as the Distribution Process Owner. The Defense Logistics Executive has authority to address logistics and supply issues. The role of the Distribution Process Owner is to improve the efficiency and interoperability of the end-to-end distribution system. Prior to these new organizational designations, the Secretary of Defense designated U.S. Joint Forces Command as the Joint Deployment Process Owner, responsible for improving joint deployment and redeployment processes. The commanders of U.S. Joint Forces Command and U.S. Transportation Command—recognizing that many deployment and distribution processes are common and that both commands serve a common customer: the supported joint force commander—signed a joint vision statement in September 2006 to help guide their partnership as they work together to improve DOD’s joint deployment and distribution.

DOD Has Not Developed a Coordinated and Comprehensive Management Approach to Joint Theater Logistics

DOD has not developed a coordinated and comprehensive management approach for guiding and overseeing the implementation of joint theater logistics across the department. While DOD intends joint theater logistics to improve the distribution and visibility of assets in theater, its current approach is not consistent with sound management principles that have been shown to be effective in accomplishing organizational transformation, and has led to fragmented efforts across components. In addition, changes in DOD’s overall logistics transformation strategy have hampered DOD’s ability to adopt a coordinated and comprehensive management approach to joint theater logistics. Without a coordinated and comprehensive approach, DOD will continue to face difficulties achieving improvements in theater distribution and asset visibility, which impair its ability to improve overall supply chain management.

¹³Joint Chiefs of Staff, Joint Publication 4-01.4, *Joint Tactics, Techniques, and Procedures for Joint Theater Distribution* (Aug. 22, 2000), p. II-6.

DOD's Approach to Joint Theater Logistics Is Not Consistent With Sound Management Principles and Has Led to Fragmented Efforts

Our review of DOD's efforts to develop joint theater logistics showed that the department has taken a piecemeal approach rather than a coordinated and comprehensive approach that is consistent with sound management principles. DOD's current approach has led to fragmented efforts among components to develop and implement initiatives. Sound management principles, such as those used by leading organizations to transform their culture and embodied in the Government Performance and Results Act, include (1) specific goals and strategies, (2) accountability for achieving results, and (3) outcome-oriented performance measures. We have previously reported that organizations that have progressed toward the results-oriented framework of the Government Performance and Results Act have established performance goals for which they will be held accountable, determined strategies and resources to effectively accomplish the goals, and measured progress towards those goals. A focus on results, as envisioned by the Government Performance and Results Act, implies that collaboration is important to ensure that consistent and complementary goals and strategies for achieving results are developed and implemented across the enterprise. Performance metrics are critical for demonstrating progress toward achieving results and providing information on which to base organizational and management decisions. Further, outcome-focused performance metrics show results or outcomes related to an initiative or program in terms of its effectiveness, efficiency, or impact. When combined with effective leadership, these principles provide a framework to guide program efforts in a coordinated and comprehensive fashion and allow leadership to determine if these efforts are achieving the desired results. In contrast, an insufficient articulation of program goals and inadequate information on performance may be impediments to improving program efficiency and effectiveness.

DOD's approach to joint theater logistics is not consistent with these principles of sound management. First, while DOD has a broad definition of joint theater logistics, it has not articulated specific goals and strategies linked to this vision. For example, DOD's Focused Logistics Roadmap, supply chain management improvement plan, and other documents we reviewed do not contain specific goals and strategies for achieving joint theater logistics. DOD also has yet to identify the resources and time frames for fully implementing joint theater logistics. Moreover, DOD's description of joint theater logistics has not been consistent over time, which may affect its ability to develop specific goals and strategies. This issue is discussed later in this report.

Second, DOD has not assigned accountability for achieving results under joint theater logistics. Although the Joint Staff Logistics Directorate has

been designated the lead proponent for joint theater logistics, no one entity within DOD has responsibility for coordinating and overseeing programs and initiatives related to joint theater logistics. In addition, while DOD has designated executive agents and process owners aimed at addressing logistics challenges that cut across the department, the roles and responsibilities among DOD components have not always been clearly delineated and may overlap. We have previously reported on problems DOD has experienced in defining accountability and authority for addressing supply distribution problems.¹⁴ For example, although the Secretary of Defense in 2003 designated the Commander, U.S. Transportation Command, as DOD's Distribution Process Owner—with responsibilities for overseeing the overall effectiveness, efficiency, and alignment of DOD-wide distribution activities—DOD has yet to issue a directive defining the process owner's authority, accountability, resources, and responsibility.¹⁵ Additionally, during our current review, service and combatant command officials had concerns with U.S. Transportation Command expanding beyond its traditional roles and responsibilities for strategic distribution, believing that there should be a hand-off of responsibilities once assets arrive in theater.

Furthermore, the diffused organization of DOD's logistics operations, including separate funding and management of resources and systems, complicates DOD's ability to adopt a coordinated and comprehensive management approach to developing and implementing joint theater logistics capabilities. Since 2003, a number of studies that have assessed DOD's logistics organization have recommended changes to DOD's organizational structure for providing joint logistics and supply support to military operations.¹⁶ Some of these organizations have noted that control over resources is a critical issue to be addressed. For example, the Defense Science Board recommended creation of a Joint Logistics Command that would combine the missions of U.S. Transportation

¹⁴[GAO-05-775](#).

¹⁵In May 2006, the Deputy Secretary of Defense redesignated the Commander, U.S. Transportation Command as DOD's Distribution Process Owner. Under this redesignation, the mission of the Distribution Process Owner is to oversee the overall effectiveness, efficiency, and alignment of DOD-wide distribution activities and to establish concepts and operational frameworks relating to the planning and execution of DOD transportation operations.

¹⁶For more information on these recommendations, see GAO, *DOD's High-Risk Areas: Progress Made Implementing Supply Chain Management Recommendations, but Full Extent of Improvement Unknown*, [GAO-07-234](#) (Washington, D.C.: Jan. 17, 2007).

Command, DLA, and service logistics commands. The Center for Strategic and International Studies also suggested the creation of a departmentwide logistics command responsible for end-to-end supply chain operations. Regarding resource allocation, it further stated that resources should be organized, managed, and budgeted largely along military service lines, but in those instances where joint capability needs are not being met with service-centric processes, the Secretary must turn to joint processes and entities for their realization. The Lexington Institute, which also recommended creation of a U.S. Logistics Command at the four-star level, concluded that Title 10 can be used to prevent joint logistics transformation and interoperability and may need to be amended in order to create a Logistics Command. The Lexington Institute also concluded that existing funding mechanisms act as disincentives for joint logistics transformation and interoperability. The Defense Business Practice Implementation Board, while not agreeing with the idea of combining U.S. Transportation Command and DLA, recommended that DOD elevate leadership for supply chain integration by designating a new Under Secretary of Defense who would have authority to direct integration activities, including control over budget decisions affecting these two components and the military services. While we noted that transformational changes such as those proposed by these organizations may not be possible without amending existing laws, the scope of our review did not include an assessment of these proposals or what changes, if any, would require congressional action.

On the basis of our prior work on DOD's approach to business transformation,¹⁷ we have stated that DOD needs to establish a chief management official at an appropriate level with the authority to be responsible and accountable for enterprisewide business transformation, including business operations related to supply chain management. Also, in our report on 21st century challenges confronting the federal government,¹⁸ we stated that DOD faces significant challenges in accomplishing its transformation goals and making improvements in key business areas such as supply chain management. We also suggested in that report that decision makers may need to reexamine fundamental

¹⁷GAO, *Defense Business Transformation: A Comprehensive Plan, Integrated Efforts, and Sustained Leadership Are Needed to Assure Success*, [GAO-07-229T](#) (Washington, D.C.: Nov. 16, 2006).

¹⁸GAO, *21st Century Challenges: Reexamining the Base of the Federal Government*, [GAO-05-325SP](#) (Washington, D.C.: Feb. 2005).

aspects of DOD's programs by considering issues such as whether current organizations are aligned and empowered to meet the demands of the new security environment as efficiently as possible and what kinds of economies of scale and improvements in delivery of support services would result from combining, realigning, or otherwise changing selected support functions, including logistics.

Third, DOD has not developed outcome-oriented performance measures for either joint theater logistics in general or for its specific initiatives. The supply chain management improvement plan lists potential metrics for joint theater logistics, but these have not been made into quantifiable, outcome-oriented measures. For example, the plan names visibility of logistics capabilities, logistics footprint,¹⁹ and joint logistics and distribution planning improvement as three potential metrics that could be developed to track results and show the impact of joint theater logistics implementation. Other documents we reviewed, including a joint theater logistics implementation plan that was drafted in 2006 but not finalized, recognize a need to identify metrics for the specific tasks required to achieve the joint processes supporting joint theater logistics. However, these metrics have not been identified as yet.

Because DOD has lacked a coordinated and comprehensive approach to managing joint theater logistics, efforts to advance joint theater logistics across the department have been fragmented. While DOD has developed a series of initiatives to improve joint theater logistics, leadership on individual initiatives is dispersed among various DOD components. Many of these initiatives have been introduced by individual services, combatant commanders, and other DOD components without an overarching management approach for coordinating efforts. For example, of the four initiatives identified in the Focused Logistics Roadmap as supporting joint theater logistics, two have been submitted by U.S. Transportation Command, one has been developed by the Army, and another has been created by U.S. Joint Forces Command. During our field visits, DOD officials identified a number of other initiatives they had under way which they regarded as joint theater logistics. Specific examples of DOD's fragmented efforts to develop and implement joint theater logistics initiatives are discussed later in this report. This fragmented approach could lead to duplication of effort as well as capability gaps, diminishing

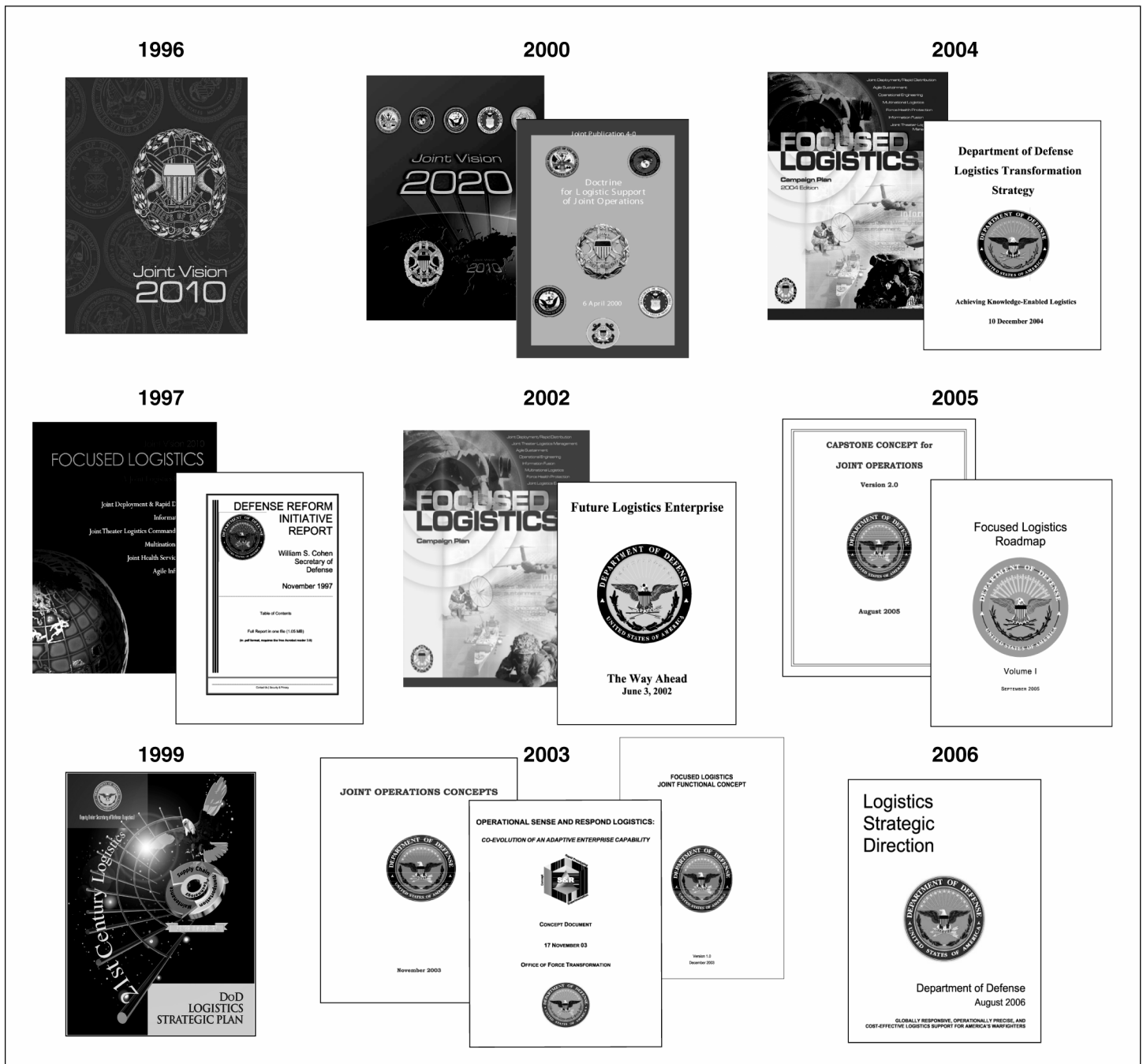
¹⁹Logistics footprint is the amount of personnel, spare parts, resources, and capabilities physically present and occupying space at a deployed location.

the potential benefits of joint theater logistics. Without a coordinated and comprehensive approach that embodies sound management principles, DOD may be unable to fully implement initiatives and achieve this capability. As a result, DOD will have difficulty improving supply chain management in the areas of distribution and asset visibility associated with joint theater logistics.

Changes in DOD's Overall Logistics Strategy Hinder Development of Joint Theater Logistics

Changes in DOD's overall logistics strategy have hampered the department's ability to adopt a coordinated and comprehensive management approach to joint theater logistics. These changes indicate that DOD has lacked a consistent vision and strategy regarding its efforts to transform logistics. Over the course of the last 10 years, DOD has made multiple alterations to its overall logistics strategy that have reflected differing visions about the future of the department's logistics system. Figure 1 shows several of the strategic planning documents, including vision statements, doctrine, campaign plans, and roadmaps, that have addressed the future of DOD's logistics systems.

Figure 1: Recent Strategic Planning Documents Addressing DOD Logistics



Source: GAO.

Many of the strategic planning documents shown in figure 1 have addressed joint theater logistics, but the description of this concept has varied over time. For example, a strategic planning document derived from Joint Vision 2010 refers to “joint theater logistics command and control,” describing this focused logistics capability primarily as a concept to clarify lines of authority through a single entity responsible for logistics support in a joint warfighting environment. However, the Focused Logistics Joint Functional Concept appeared to change the focus of joint theater logistics from command and control to management. This document identified joint theater logistics as a capability aimed at developing tools to allow the joint force commander to effectively oversee management of logistics through the range of military operations and did not focus on clarifying lines of authority through a single logistics command and control organization. As part of this continuing evolution of DOD logistics strategies, the most recent efforts include (1) the “to be” roadmap, (2) the revision of the Focused Logistics Joint Functional Concept, and (3) the capabilities portfolio management test for joint logistics.

- “To Be” Roadmap. As a follow-on to the 2005 “as is” Focused Logistics Roadmap, DOD is developing a “to be” roadmap. Because the “as is” roadmap indicated that key focused logistics capabilities would not be achieved by 2015, the Under Secretary of Defense (Acquisition, Technology, and Logistics) directed the department to prepare a more rigorous “to be” roadmap that would identify the scope of logistics problems and capability gaps to be addressed, including joint theater logistics. According to DOD officials, the roadmap is intended to portray where the department is headed in the logistics area and how it will get there, monitor progress toward achieving its objectives, and institutionalize a continuous assessment process that links ongoing capability development, program reviews, and budgeting. The first edition of the “to be” roadmap was scheduled for completion in February 2007, in conjunction with the submission of the President’s Budget for Fiscal Year 2008. However, DOD put the roadmap on hold pending the completion of other strategic initiatives. As of March 2007, DOD estimated it would complete the roadmap by March of 2008, after completion of its capabilities portfolio management test. Capabilities portfolio management is discussed below.
- Focused Logistics Joint Functional Concept. DOD is revising the Focused Logistics Joint Functional Concept, which could affect the future of joint theater logistics. In August 2006, Joint Staff officials told us that they no longer believe that the Focused Logistics Joint Functional Concept approved in 2003 accurately captures the capabilities needed by the

warfighter, as they found it difficult to delineate the relationships among the seven focused logistics capabilities, including joint theater logistics. Consequently, the Joint Staff is currently rewriting the Focused Logistics Joint Functional Concept, which they expect to be finalized in the fall of 2007. According to Joint Staff officials, the revision will likely realign focused logistics capabilities, reducing the number of capabilities supporting joint logistics from seven to five. They have stated that joint theater logistics may cease to exist as a stand-alone capability area under the proposed realignment. However, they have said that the tenets of joint theater logistics would be retained in the remaining capability areas addressing the supply chain, and the functional areas associated with joint theater logistics would be integrated within the broader joint logistics portfolio. Once the Focused Logistics Joint Functional Concept paper is rewritten, DOD intends to complete the “to be” roadmap in alignment with the new joint logistics capability areas. Additionally, DOD’s key joint doctrine document for joint logistics operations, Joint Publication 4-0, is being rewritten to reflect these changes.

Prior to these changes, the Joint Staff’s Joint Theater Logistics working group had begun developing an implementation plan for joint theater logistics. As part of this plan, the working group identified 13 capability areas in support of joint theater logistics.²⁰ For each capability, the working group planned to evaluate different processes used by the services and merge the common parts of these individual processes into a joint process to meet the commander’s requirements. The working group finished identifying the joint processes for 3 of these potential capability areas that were considered most readily joint—ammunition, fuels, and mortuary affairs— and began drafting the joint tasks and metrics associated with each. Drafts of these documents were completed prior to the summer of 2006, and the goal was to have the tasks identified for the 3 capability areas by July 2006. All the services have agreed to these three joint processes, and officials said that the next step is to complete task identification for all 13 capabilities. However, these efforts have been placed on hold pending DOD’s realignment of the joint capability areas.

²⁰The 13 joint theater logistics capabilities areas identified in this process were: engineering; joint reception, staging, onward movement, and integration; joint expeditionary theater opening; joint contracting; joint deployment and distribution management; joint petroleum management; joint service support; joint financial management visibility; joint repair and maintenance; joint subsistence, food service support, and water management; mortuary affairs; joint theater conventional munitions management; and health service support.

-
- Capabilities Portfolio Management. In a separate but related effort, the department has begun testing a new approach to managing the development of joint capabilities DOD-wide. This new approach is known as joint capabilities portfolio management. In September 2006, the Deputy Secretary of Defense selected joint logistics as one of four capability areas for testing capabilities portfolio management.²¹ These experiments were initiated in response to the 2006 Quadrennial Defense Review that emphasized DOD's need to build on capabilities-based planning and management. According to DOD officials, the purpose of this test is to determine if DOD can make better leadership decisions by managing a portfolio of capabilities instead of managing systems and capabilities individually. Thus, this portfolio test is intended to enable senior leaders to consider trade-offs across previously stovepiped areas and to better understand the implications of investment decisions across competing priorities. The Joint Staff Director for Logistics is the test director for the joint logistics test case, which will include all capabilities required to project and sustain joint force operations, including supply chain operations. DOD will examine the capabilities and their initiatives in order to identify gaps or redundancies or determine where initiatives complement one another. According to Office of the Secretary of Defense (OSD) and Joint Staff officials, the initial results of the joint logistics capability portfolio management test were expected to be available in late spring 2007. The officials told us that these results will then be used to write the revision to the Focused Logistics Joint Functional Concept, which they said will enable them to complete the "to be" roadmap. Joint Staff officials are also awaiting the completion of the test prior to updating their joint theater logistics implementation plan.

As DOD continues its attempt to articulate an overall strategy to guide logistic transformation, the development of the "to be" roadmap and other activities related to implementing joint theater logistics have been delayed due to these changes. In addition, the initiation of the capabilities portfolio management experiment has the potential to fundamentally alter the management of joint logistics. Until DOD decides on its vision and aligns its strategic direction, it will be unable to develop a coordinated and comprehensive approach to joint theater logistics. Moreover, it will be unable to ensure that it is achieving its desired improvements in theater distribution and asset visibility associated with joint theater logistics.

²¹The other three test cases are Joint Command and Control, Joint Network Operations, and Battlespace Awareness.

DOD Has Made Progress on Joint Theater Logistics Initiatives but Faces Challenges That Hinder Its Ability to Fully Realize the Benefits of These Efforts

DOD components have several initiatives under way that are aimed at developing a joint theater logistics capability in the area of distribution and supply support. Our analysis showed that the current initiatives generally address five areas of distribution and supply support to a joint force commander. Some of the initiatives have been specifically designated by DOD as supporting joint theater logistics, and other initiatives supporting this capability were identified during our field visits with DOD components. Although progress has been made on some initiatives, DOD faces challenges in fully developing and implementing these initiatives. Table 1 summarizes the five areas of distribution and supply support, the related joint theater logistics initiatives, and the challenges we identified during our review.

Table 1: Challenges Hindering DOD’s Ability to Fully Implement Joint Theater Logistics Initiatives

| Area of distribution and supply support | Related joint theater logistics initiatives | Challenges hindering full implementation |
|--|--|---|
| Receiving and processing a large influx of supplies at the beginning of a military operation | Joint Task Force-Port Opening | <ul style="list-style-type: none"> Potential redundancy of efforts Sourcing and use of personnel Command and control issues |
| Management of supplies moving across the distribution system | Joint Deployment Distribution Operations Center | <ul style="list-style-type: none"> Noninteroperable information technology systems Container management |
| Theaterwide coordination of surface transportation assets | Theater and Expeditionary Sustainment Commands, Director of Mobility Forces-Surface | <ul style="list-style-type: none"> Fragmented theater logistics operations Lack of information technology tools Insufficient numbers of skilled personnel Unclear position in command structure Command and control issues Potential duplication of efforts |
| Consolidation of supply storage and shipping activities | Node Management and Deployable Depot, Joint Regional Inventory and Material Management, Theater Consolidation and Shipping Point | <ul style="list-style-type: none"> Funding of inventories Security concerns |
| Exercise of command and control over joint logistics functions | Joint Experimental Deployment and Support | <ul style="list-style-type: none"> Statutory requirements for logistics support Exercising directive authority for logistics Operational and financial considerations |

Source: GAO analysis.

Unless DOD successfully addresses these challenges, the initiatives are not likely to significantly improve the ability of a joint force commander to

harness the diffuse logistics resources and systems that exist within the department and effectively and efficiently direct logistics functions, including distribution and supply support activities, across the theater of operations to accomplish an assigned mission. Moreover, without addressing such challenges, DOD is likely to continue to experience some of the same types of distribution and asset visibility problems that have occurred during Operation Iraqi Freedom.

New Port Opening Capability Faces Implementation Challenges

DOD has developed an initiative to improve its port opening capability but faces implementation challenges because of concerns with potential redundancy of efforts, staffing, and command and control issues. The capability to rapidly open a new port in a theater to receive and process a large influx of equipment and supplies is critical during the initial stages of a military operation, ranging from humanitarian missions to major combat operations. A rapid port opening capability provides the joint force commander with an expeditionary force to conduct an airfield or distribution assessment, establish initial command and control, set up critical in-transit visibility and communications systems, and establish movement control over distribution operations. However, in the early stages of Operation Iraqi Freedom, U.S. forces did not deploy a sufficient port opening capability that was needed in Kuwait to successfully establish initial supply and distribution operations. For example, we have previously reported that because DOD's priority was for combat forces to move into the theater first, logistics support forces to establish an initial theater distribution system were either deleted from the deployment plan or shifted back in the deployment timeline.²² As a result, logistics personnel could not effectively support the increasing numbers of combat troops moving into theater, and the shortage of logistics support resulted in delays in the processing of supplies as well as backlogs. According to Army officials, these early decisions regarding port opening capabilities led to problems in sustaining a large influx and flow of materiel during early operations. The Army's deployed port opening capability could not support more than a brigade-sized element, which resulted in a number of theater distribution problems.

DOD Has Established a New Port Opening Unit

To improve DOD's rapid port-opening capability, U.S. Transportation Command began developing the Joint Task Force-Port Opening initiative in 2005, and the Secretary of Defense approved a standing Execution

²² [GAO-04-305R](#) and [GAO-05-775](#).

Order for the initiative in May 2006. As the Distribution Process Owner, U.S. Transportation Command wanted a capability to rapidly extend the distribution network into a theater and facilitate theater distribution. The mission of the joint task force is to rapidly open a port and manage initial distribution operations. Joint Task Force-Port Opening is comprised of air and surface elements that train and work together, are deployable in 12 hours, and are to be deployed for approximately 45-60 days before being replaced by follow-on forces. According to U.S. Transportation Command, Joint Task Force-Port Opening is designed to rapidly establish and initially operate a port, facilitating more effective movement of materiel within the theater by arranging cargo just off the airfield in a logical pattern and creating a forward distribution point, or node,²³ within 10 kilometers. The capability was initially validated for an aerial port of debarkation, and development of a similar capability for a seaport of debarkation has begun.²⁴ Joint Task Force-Port Opening bypassed the Joint Capabilities Integration and Development System process initially but is now going through an accelerated review.²⁵ U.S. Transportation Command's goal is to have three Joint Task Force-Port Opening units, each comprised of an air and a surface element, which would facilitate a cycle allowing for an active, a training, and a reconstituting unit at any given time. Currently, there is one surface element at Fort Dix, New Jersey, that is staffed by individuals from multiple Army Reserve units and filled through a request for forces that was originally set to expire in June 2007. The air element is provided by the Air Force's existing Contingency Response Groups, and the current group is located at McGuire Air Force Base, New Jersey, near the surface element at Fort Dix.

²³ A distribution node exists wherever materiel arrives in the distribution system via transportation assets such as air, surface, or ground transport.

²⁴ According to U.S. Transportation Command, the Joint Task Force-Port Opening seaport of debarkation team is in the final stages of staffing its concept of operations for U.S. Transportation Command components, U.S. Joint Forces Command, the Joint Staff, and the services. The concept has also been briefed to the geographic combatant commanders' staffs. U.S. Transportation Command officials stated that planning and development of the seaport of debarkation training concept and force sourcing activities began in April 2007, with a goal of having forces to train by late summer of 2007.

²⁵ DOD uses the Joint Capabilities Integration and Development System as an analytical process to identify, assess, and prioritize joint military requirements in support of the Joint Requirements Oversight Council and its Functional Capabilities Boards. The purpose of the analysis process is to identify capability gaps and redundancies, determine the attributes of a capability or combination of capabilities that would resolve the gaps, identify approaches for implementation, and assess the cost and operational effectiveness of the joint force for each of the identified approaches.

Army Officials Have Raised Concerns About the Port Opening Unit

During our field visits with combatant commands and the military services, we found that while there was agreement on the need for an effective port-opening capability, DOD components had differing views on how to address the shortfall in this capability that became apparent during Operation Iraqi Freedom. In particular, senior Army officials we interviewed—to include officials at the Office of the Deputy Chief of Staff for Logistics, Army Reserve, and Army Combined Arms Support Command—expressed concerns regarding (1) the potential redundancy between the Joint Task Force-Port Opening initiative and their own service-led efforts, (2) the personnel resources devoted to the task force, and (3) command and control issues. Until the challenges associated with implementing this initiative are resolved, DOD will continue to struggle to develop and implement an effective and integrated port opening capability.

Army officials questioned the need for Joint Task Force-Port Opening in view of existing and emerging capabilities within the Army. Some Army officials we interviewed asserted that the Army already has an adequate port opening capability but it was not deployed properly during the initial stages of Operation Iraqi Freedom.²⁶ These officials consider Joint Task Force-Port Opening to be redundant of existing capabilities. Other Army officials stated that while DOD's port opening capability has been deficient, the Army's ongoing efforts to enhance its expeditionary theater opening capability will address this shortfall. Military officials have said that the Army's expeditionary theater opening capability extends beyond the early entry capability of Joint Task Force-Port Opening, and includes a range of key capabilities critical to larger theater opening efforts. In the view of Army officials, port opening is a subset of this larger effort, and consequently Joint Task Force-Port Opening will ultimately fall short of the capability they believe is required and will need to be integrated into a larger theater opening framework. Army officials also had some concerns about the effectiveness of Joint Task Force-Port Opening across the range of military operations. Some officials noted that Joint Task Force-Port Opening could become quickly overwhelmed by a large operation and that additional Army logistics personnel would have to be deployed to supplement the task force's operations.

²⁶Marine Corps officials noted that their service has its own port opening capability through its special purpose Marine Air-Ground Task Forces.

A second area of concern to Army officials is the personnel requirements to staff the Joint Task Force-Port Opening surface element. Army officials told us they were unable to use active duty personnel to fill the surface element due to commitments to other operations, so they turned to the reserve component to fill these positions. However, Army Reserve officials have questioned the sustainability of the task force using reservists. These officials noted that placing Army Reserve personnel on standby for potential Joint Task Force-Port Opening deployment uses up the mobilization time of these reservists without actually deploying the force. The Secretary of Defense recently extended the provisional status of Joint Task Force-Port Opening due to competing priorities for funding and personnel. As a result, the Army Reserve will continue the interim manning arrangement of the task force until the summer of 2008 rather than the summer of 2007 as initially planned.

A final area of concern that emerged from our discussions with Army officials was command and control over Joint Task Force-Port Opening. Army officials raised questions about who would have the authority to deploy the task force and who would direct its operations once it deploys. According to Army officials, such command and control issues must be resolved before Joint Task Force-Port Opening can be effectively integrated into military operations. A theater opening exercise conducted by the Army in November 2006 revealed that these issues had not been resolved. U.S. Transportation Command officials, however, do not identify command and control as an issue regarding the task force. They have stated that the Commander, U.S. Transportation Command, would have the authority to direct the Joint Task Force-Port Opening into the theater and that the joint force commander may exert command and control while the unit is deployed.

DOD Has Taken Steps to Improve Supply Distribution, but Asset Visibility and Container Management Challenges Remain

DOD has taken steps to improve the management of supplies moving across the distribution system, particularly through the creation of Joint Deployment Distribution Operations Centers, but challenges remain in achieving asset visibility across the theater and in managing containers. We have previously reported that the defense logistics systems used by various components to order, track, and account for supplies are not well integrated and do not provide the information needed to effectively manage theater distribution and provide asset visibility.²⁷ Limitations in

²⁷ [GAO-05-775](#).

DOD Has Established Joint Operations Centers in the Geographic Combatant Commands

these capabilities have led to difficulties in the logistics planning process and the creation of potential double orders for the same supply part, and could impact readiness of forces.

To address deficiencies in the management of theater supply distribution, DOD has created Joint Deployment Distribution Operations Centers within the geographic combatant commands. The mission of the operations centers is to improve intertheater and intratheater supply distribution by integrating the flow of military forces and supplies and materiel to sustain U.S. forces. The operations centers are designed to incorporate representatives from DOD components, such as U.S. Transportation Command, DLA, and the military services, who can provide a knowledgeable connection to logistics supply centers in the United States and facilitate the distribution of supplies to the theater. According to DOD officials, the Joint Staff and U.S. Joint Forces Command are currently working to incorporate the operations centers into joint doctrine, which will result in updating numerous existing DOD publications.

Initiated by U.S. Transportation Command, the first Joint Deployment Distribution Operations Center was established in Kuwait under U.S. Central Command. In addition to managing the coordination between services and logistics agencies and improving asset visibility as supplies enter the theater, operations center personnel also analyze distribution problems, identify causes, and propose solutions. DOD officials have stated that the operations center was successful at improving the management of supplies moving across the distribution system and achieving cost savings. For example, U.S. Transportation Command officials said the operations center was responsible for shifting from the use of airlift to sealift to transport supplies, which reduces costly airlift requirements and frees up airlift capacity; coordinating the movement of personnel from their point of origin to final destination rather than through intermediate locations with time-consuming layovers (a concept referred to as “single ticket”); and improving distribution management by facilitating the use of pure-packed pallets and containers,²⁸ developing a container management plan, and improving the return of Army materiel from the theater. According to data provided by U.S. Transportation Command, the activities of the Joint Deployment Distribution Operations Center have resulted in total cost avoidance and savings of \$343 million between fiscal years 2004 and 2007.

²⁸Pure-packing is the consolidation of cargo for shipment to a single user.

On the basis of the successes attributed to the Joint Deployment Distribution Operations Center in Kuwait, DOD established new operations centers in the other geographic combatant commands. The size, structure, and organizational placement of these operations centers vary across the combatant commands. For example, the U.S. Central and European Commands have the largest operations centers, with approximately 60 and 55 personnel, respectively. The other centers are considerably smaller with a core staff ranging from 7 to 12 personnel. However, the operations centers are considered “scaleable”—that is, they can be increased in size as needed to support a military exercise or operation.

**Lack of System Interoperability
Has Impeded Asset Visibility**

Senior military commanders in Kuwait told us that despite the benefits obtained from the Joint Deployment Distribution Operations Center, effective management of supply distribution across the theater has been hindered by ongoing challenges in achieving asset visibility. They attributed these challenges to a lack of interoperability among information technology systems, making it difficult to obtain timely and accurate information on assets in the theater. Interoperability refers to the ability of different systems to communicate effectively, including sharing information. Interoperable systems providing effective asset visibility can enable commanders and logisticians to have a common operating picture concerning the location, status, and identity of equipment and supplies across a theater. According to DOD doctrine, asset visibility across the supply chain and a common operating picture are both key enablers for joint theater logistics. In our previous reports, we stated that DOD lacks the systems integration necessary to provide total asset visibility because of the duplicative and stovepiped nature of DOD’s systems environment.²⁹

During our field visit to Kuwait, officials from the 377th Theater Support Command and 143rd Transportation Command said they must use manual workarounds to overcome the problems caused by noninteroperable information systems. These officials estimate that their staff spends half their time pulling data from information systems, e-mailing it around for validation or coordination, consolidating it on a spreadsheet, and analyzing it to make management decisions. In January 2007, a joint assessment conducted by several DOD components at Camp Arifjan,

²⁹ GAO, *Defense Inventory: Improvements Needed in DOD’s Implementation of Its Long-Term Strategy for Total Asset Visibility of Its Inventory*, [GAO-05-15](#) (Washington, D.C.: Dec. 6, 2004) and GAO, *DOD Business Systems Modernization: Billions Being Invested without Adequate Oversight*, [GAO-05-381](#) (Washington, D.C.: Apr. 29, 2005).

Problems With Container Management Have Continued

Kuwait, found that information technology capabilities need to be improved to achieve visibility of materiel in transit and of transportation resources required to optimize distribution. The assessment reported that separate movement control battalions in Kuwait and Iraq use both automated and handwritten transportation movement requests to track air and ground movements. Consequently, to capture the total theater movement picture, both movement control battalions must consolidate manual and automated data into spreadsheets. Neither movement battalion has total visibility over what is occurring in both Kuwait and Iraq. Nor do they have total visibility of the surface transportation resources necessary to optimize the distribution of resources. The movement control battalions use e-mail on a daily basis to coordinate each other's projected movement requests and planned commitment of transportation assets.

DOD also has challenges with container management that hinder asset visibility and impede its ability to effectively manage logistics operations and costs. These challenges include (1) the application of radio frequency identification technology on containers in the supply chain, (2) compliance with container management processes, and (3) the return of commercial containers to maritime carriers. We discussed some of these same problems in a prior report.³⁰

Most supply items shipped by surface ships, excluding large end items such as vehicles, are consolidated and packed into 20- or 40-foot sea-land containers (such as those shown in fig. 2) that are owned by the government or commercial maritime carriers.

³⁰ [GAO-04-305R](#).

Figure 2: Military Storage Containers in Kuwait (October 2006)



Source: GAO.

In 2004, the Under Secretary of Defense (Acquisition, Technology, and Logistics) directed the use of active radio frequency identification technology³¹ on all consolidated shipments moving to, from, or between overseas locations. These shipments are to be tagged in order to provide global in-transit visibility. U.S. Central Command has emphasized the need to use radio frequency technology to improve asset visibility in Iraq and Afghanistan. In January 2005, the Commander, Coalition Forces Land Component Command, directed that all containers moving to, from, and within the theater have active radio frequency tags written with complete contents detail. However, more than a year later, inadequately tagged containers continued to move throughout the theater. Consequently, the

³¹Radio frequency identification technology is a data input system that consists of (1) a transponder, generally referred to as a tag; (2) a tag reader, also known as an interrogator, that reads the tag using a radio signal; (3) centralized data processing equipment; and (4) a method of communication between the reader and the computer. The interrogator sends a signal to the tag, prompting the tag to respond. The battery-powered tag sends a signal to the interrogator with information about the container, pallet, or item to which it is attached. The information is forwarded to the central data processing equipment where it is stored and can be used to provide visibility over inventory items as they move throughout the supply chain.

Commander issued an updated radio frequency tag policy in October 2006, instituting a phased-in approach for compliance according to the following timeline: 50 percent compliance by November 1, 2006; 75 percent by December 1, 2006; and 100 percent by January 1, 2007. However, despite this updated policy, inadequate radio frequency tagging of containers continues to be a problem.

U.S. Central Command officials, including general officers, identified a number of reasons why DOD continues to struggle with the application of radio frequency identification technology in the theater supply chain. Some problems include shipping containers without radio frequency tags or with tags that are broken, tags with incorrect information, or tags that are rewritten but not cross-referenced to the original shipping information. Based on tracking charts from the Container Management Element,³² from the period of August 15, 2006, to April 9, 2007, 15 percent of the containers that passed northbound through the NAVISTAR³³ distribution point had no radio frequency tag. Another 20 percent of the containers had broken tags or tags that did not match the container contents.³⁴ In addition, a radio frequency tag must be created to have the container's shipping information and contents entered into an inventory software system that then uploads the information to the DOD in-transit visibility server. When a container moves between transportation nodes—the airport, seaport, Army general support warehouse, Consolidation Receiving and Shipping Point, Defense Distribution Depot, Theater Consolidation and Shipping Point, NAVISTAR, or forward-located nodes in Iraq—it might require creating a new tag to upload new information to the in-transit visibility server. A container may require a new tag if its current tag is broken or found to contain inaccurate data or when a container is opened and repacked. The problem arises when the new radio frequency tag, with its newly generated number that is assigned by the local inventory software system, does not reference back to the original tag number. As a result, the requesting customer might look up the original tracking number in the in-transit visibility server and no longer have visibility of the shipment.

³²This element is under the Joint Deployment Distribution Operations Center.

³³NAVISTAR is the point of crossing from Kuwait into Iraq.

³⁴These averages exclude a gap from November 13 through November 30, 2006, for which no data are available.

Noncompliance with container management processes established by U.S. Central Command can limit asset visibility of supplies. Officials in U.S. Central Command's Container Management Element use an Army Web-based central database to track container ownership, location, condition, and use, and to provide visibility of all containers in theater. For the system to effectively track containers, the containers must be properly "in-gated"—recorded entering a transportation node—and "out-gated"—recorded leaving a transportation node. In a process similar to the commercial shipper tracking systems used by United Parcel Service or Federal Express, a container is in-gated when it first arrives at a location to document that it has been received, according to Container Management Element officials. Upon departure from that location, the container is out-gated to indicate that it has been shipped. Container Management Element officials stated that the failure of transportation nodes to properly in-gate and out-gate containers as they pass through distribution channels is a significant problem hampering asset visibility in theater because tagged containers can become "lost" in theater, with no one able to track the location of the container or its contents. In addition, if the container is commercially owned and not returned to the carrier within a specified time period, detention charges begin accumulating.

In the early stages of Operation Iraqi Freedom, commercial containers were flowing into the theater but were not always tracked once in Iraq, and many of the commercial containers moving into Iraq were not quickly returned to maritime carriers.³⁵ In July 2005, the Army Audit Agency reported that container detention charges were continuing to accrue at about \$15 million per month.³⁶ To improve management and accountability over containers and to address the growing detention charges, U.S. Transportation Command and the Military Surface Deployment and Distribution Command developed a theater container management process and established the Container Management Element—a unit responsible for tracking and providing management oversight of containers in the theater. In addition, the Army decided to purchase ("buy out") commercial containers to reduce monthly detention

³⁵Containers were not returned for a number of reasons, primarily because the military's resources were dedicated to tactical operations and because soldiers resourcefully made use of empty containers for such purposes as storage, perimeter barriers, and housing.

³⁶U.S. Army Audit Agency: *Asset Visibility and Container Management—Operation Iraqi Freedom, Audit Report: A-2005-0197-ALE* (Alexandria, Va.: July 5, 2005). As of May 2004, only 6 of the 37 transportation nodes in Iraq could read radio frequency tags.

charges. According to information provided by the Military Surface Deployment and Distribution Command, the Army had purchased approximately 28,832 containers at a total cost of approximately \$203 million, as of December 2006. Container Management Element officials told us that through a combination of container buyouts and increased oversight, detention charges decreased from approximately \$10.7 million per month in December 2005 to \$3.7 million per month in October 2006.

Although DOD has been able to reduce monthly detention charges on commercial containers, it is still experiencing problems with retaining visibility over containers. As of April 30, 2007, the central container database showed that 54,390 containers—or more than one-third of all containers in the U.S. Central Command theater—were considered to be lost. Furthermore, according to container management officials, DOD's problem with commercial container detention charges is shifting from Iraq to Afghanistan. Efforts to curtail the movement of commercial containers into Iraq have been largely successful, according to information provided by container management officials. For example, of the 13,440 containers sent to Iraq from June 6, 2006, to October 17, 2006, only 19 were commercially owned. However, 4,901 (85 percent) of the 5,752 containers sent into Afghanistan during the same period were commercial containers. Container buyout data for December 2006—the most recent data available—show that 4,748 (67 percent) of the 7,038 containers purchased were in Afghanistan. According to container management officials, this problem stems from a general shortage of government-owned containers in the theater and the lack of a container transloading operation for materiel shipped into Afghanistan that would be similar to the one at the port of Kuwait for materiel going to Iraq.³⁷ Items being shipped by sea to Afghanistan enter through the port of Karachi in Pakistan since Afghanistan is landlocked. According to container management officials, establishing a transloading operation in Pakistan would be difficult because of restrictions placed on U.S. military personnel in Pakistan. These officials said that commercial containers en route to Afghanistan begin to accumulate detention charges prior to reaching their final destination because of the time required for trucks to cover the difficult inland route.

³⁷Transloading is the unloading of a commercially owned container and repacking its contents into a government-owned container.

Separate Organizations Are Being Established to Coordinate Surface Transportation

DOD components have initiatives underway to better coordinate the surface transportation of supply items that are distributed across a military theater of operations, but these efforts face challenges to their implementation and may duplicate some functions. During the initial phase of Operation Iraqi Freedom, DOD faced problems with prioritizing and managing its transportation assets across the theater. According to a 2005 RAND study,³⁸ U.S. forces suffered from both a shortage of transportation assets—primarily trucks—and the fragmented control and management of these assets across the different echelons of theater command. While RAND reported that exact data on the total truck shortage were not available, the estimated ratio of Army personnel to medium truck equivalents was 194 to 1 at the beginning of Operation Iraqi Freedom compared to approximately 73 to 1 in Operation Desert Storm. In addition, the distances from logistics operating bases to support combat operations were greater—344 miles to Baghdad, versus 210 miles to the farthest incursion during Operation Desert Storm. The Army Division Support Command, Corps Support Command, Area Support Group, and Theater Support Command each controlled a portion of the truck assets within the theater. Consequently, there was no single distribution organization to advocate for truck assets during the force planning process, which may account for the shortage of trucks, and no single organization deployed in theater with the authority to rebalance transportation assets across the theater and integrate and synchronize the surface deployment and distribution movements in support of the commander's priorities.

Sustainment Commands and Surface Mobility Directorate Are Aimed at Coordinating Surface Transportation

The Army and U.S. Transportation Command have separate initiatives aimed at addressing these surface transportation problems. As part of its modular transformation, the Army is creating new organizations—Theater Sustainment Commands and Expeditionary Sustainment Commands—that are aimed in part at centralizing control over Army surface transportation assets within a theater of operations. Under the Army's emerging sustainment doctrine, the objective of the Theater Sustainment Command is to provide the Army with a single headquarters responsible for operational command and control of logistics operations throughout the theater. Its functions include theater opening, materiel management, and distribution. This command would typically operate in a rear area away

³⁸RAND Corporation, *Sustainment of Army Forces in Operation Iraqi Freedom: Battlefield Logistics and Effects on Operations*, Contract No. DASW01-C-0003 (Santa Monica, Calif.: 2005).

from frontline military operations. Theater Sustainment Commands replace the Army's existing Theater Support Commands and are designed to plan, prepare, rapidly deploy, and execute operational logistics within the theater of operations.³⁹ Expeditionary Sustainment Commands, a forward extension of the Theater Sustainment Commands, have a primary role of managing regional logistics operations in support of the joint task force commander. According to U.S. Central Command officials, the 1st Theater Sustainment Command and the 316th Expeditionary Sustainment Command are scheduled to deploy to Kuwait and Iraq, respectively, in the summer of 2007. In addition, the 8th Theater Sustainment Command has been established in U.S. Pacific Command, Hawaii, and the 19th Expeditionary Sustainment Command is operational in Korea.

In a separate initiative, U.S. Transportation Command created a new organization, the Director of Mobility Forces-Surface, to integrate surface deployment and distribution priorities set by the joint force commander. According to U.S. Transportation Command, this initiative will enable DOD to better synchronize and direct the movement and coordination of surface transportation resources to ensure uninterrupted distribution of materiel from air and sea ports of debarkation to destinations within the theater. In addition, U.S. Transportation Command officials believe that theater surface distribution will benefit from establishing an organization that has a capability similar to that provided by the Director of Mobility Forces-Air for theater air distribution.⁴⁰ The proposed responsibilities of the Director of Mobility Forces-Surface include coordinating, prioritizing, and executing surface transportation movement requests. In Kuwait, U.S. Transportation Command and U.S. Central Command established a pilot Director of Mobility Forces-Surface in August 2006 and completed an initial assessment of the pilot in February 2007. In addition, this initiative has been tested during exercises in Korea, most recently in March 2007.

³⁹ Certain subordinate command elements under the replaced Theater Support Command also will be eliminated, such as the Transportation Command, Transportation Command Element, and Transportation Group. The Division Support Command, Corps Support Command, and Area Support Group have also been eliminated from the Army force structure.

⁴⁰ According to U.S. Transportation Command officials, after Operation Desert Shield/Desert Storm the Air Force realized that it did not have the right mix of skills and capabilities to integrate the air mobility mission into the combined air operations center of the combined joint forces air component command. In response, the Air Force developed the air mobility division and its command structure, including the Director of Mobility Forces-Air, to provide this strategic-to-theater integration of distribution.

Initiatives Face Implementation Challenges

The Army and U.S. Transportation Command face a number of challenges in the implementation of their initiatives. While the Army's Theater and Expeditionary Sustainment Commands were designed to be the single headquarters responsible for operational command and control of logistics operations throughout the theater, the fragmentation of logistics operations in theater may hinder it from achieving this objective. More specifically, according to U.S. Central Command officials, the 1st Theater Sustainment Command will be placed under the Commander, Coalition Forces Land Component, in Kuwait. As the forward extension to Theater Sustainment Commands, Expeditionary Sustainment Commands are designed to operate under the command and support of the Theater Sustainment Command in order to provide a single command for logistics theaterwide. However, according to U.S. Central Command officials, the deployment order for the 316th Expeditionary Sustainment Command has placed it under the operational control of the Commander, Multi-National Forces-Iraq. While still attached to the 1st Theater Sustainment Command, the placement of the 316th Expeditionary Sustainment Command under Multi-National Forces-Iraq will likely continue the fragmentation of logistics operations like surface distribution that the new command structure was designed to eliminate. The Commander, Coalition Forces Land Component, is a (Three Star) Lieutenant General, and the Commander, Multi-National Forces-Iraq, is a (Four Star) General and the highest ranking officer in the theater, responsible for U.S. operations in Iraq. As a result, the 1st Theater Sustainment Command will likely be responsible for logistics operations in Kuwait and the rest of the theater, while the 316th Expeditionary Sustainment Command will be responsible for logistics operations in Iraq. In addition, the 19th Expeditionary Sustainment Command in Daegu, South Korea, is under the operational control of the Commander, U.S. Forces Korea, rather than the 8th Theater Sustainment Command in U.S. Pacific Command, Hawaii. The deployment of these new Army logistics support units under command and control structures that differ from their original design raises questions about the efficacy of the emerging Army sustainment command doctrine and its general applicability to joint military operations conducted within a combatant command theater.

Army officials also raised concerns about whether the sustainment commands would have the information technology tools and personnel necessary to effectively and efficiently carry out their mission. They said these commands were designed to be smaller than their predecessors based on an assumption that certain information technology tools would be available to enable the commands to operate with fewer personnel. However, some of these information technology tools have experienced

problems during their development that have limited their capability or have delayed their fielding. For example:

- The next generation Mobile Tracking System is a satellite tracking system for trucks that in its most advanced configuration is also able to read and relay information from radio frequency identification tags attached to containers and pallets traveling in a supply convoy. This technology could provide near real-time visibility and location data on supplies moving through the theater by surface transportation. However, the technology is expensive and few trucks are equipped with this latest configuration.
- Battle Command Sustainment Support System processes a large amount of logistics data and can facilitate decision making by providing a means for commanders to determine the sustainability of current and planned operations. The system provides a capability for tracking supply convoys moving through an area of operation. However, it lacks the integration to produce and send a cargo manifest that can be linked to an in-transit visibility device for tracking.
- TransLog Web was designed to serve as the single point of entry for transportation movement requests. This Web-based program could serve as a transportation planning and movement tracking tool to assist movement managers in coordinating supplies and transportation assets. However, the system (1) is not used by all movement control teams, (2) does not provide visibility of the cargo's description beyond the supply class, and (3) does not feed information to the Global Transportation Network.⁴¹
- Transportation Coordinator's Automated Information for Movements System II is expected to enhance and improve the efficiency and effectiveness of support planning needed to deploy and redeploy forces and equipment; improve the visibility of assets; and enhance cargo and passenger receiving, controlling, and shipping. However, the system is not scheduled to be fully operational until around 2010, and while the Army justified the system based on its joint service application, two services (the

⁴¹The Global Transportation Network is DOD's designated in-transit visibility system that collects, integrates, and distributes transportation information to combatant commanders, the military services, and other DOD customers and provides U.S. Transportation Command with the ability to perform command and control operations, planning and analysis, and business operations in tailoring customer requirements throughout the requirements process.

Air Force and the Marine Corps) have stated that they do not intend to use it.⁴²

According to Army officials, the shortcomings in available information tools have resulted in the need for additional staff in the sustainment commands. They explained that problems with data and a lack of system interoperability have required the commands to use manual, ad hoc techniques to validate, coordinate, and analyze data for decision making, and these efforts are cumbersome and manpower intensive. In Kuwait, the 377th Theater Support Command, including subordinate commands such as the 143rd Transportation Command, controlled an organization of several thousand personnel. By comparison, the Theater Sustainment Command that will replace it was designed to be staffed with several hundred people. According to Army officials, if the Army had all the information technology tools in place that have been promised and factored into the design of the new sustainment commands, it might be possible to accomplish its mission with the smaller staff. To meet the additional personnel requirements of the sustainment commands, U.S. Central Command issued a request for additional forces, which increased Theater Sustainment Command staffing from 155 to 461 personnel and Expeditionary Sustainment Command staffing from 254 to 378 personnel. Furthermore, Army officials noted that the leaner staffing of the new commands places a premium on obtaining personnel with the right expertise and skills. For example, assigned staff will need to be fully networked with the national inventory control points, able to quickly develop support relationships, and determine the best method of meeting requirements. They must be proficient in tapping into the Army's standard supply system, prepositioned stocks, host nation support, and contracting. The officials expressed some concern about the probability of getting personnel with those skills and expertise on a recurring rotational basis.

The Director of Mobility Forces-Surface has also faced implementation challenges. During exercises in Korea, the new organization has had difficulty establishing its position within the U. S. Forces Korea and Combined Forces Command structure. In each exercise, the directorate has been placed under a different organization. For example, it has been tested under the operational control of the Joint Force Support

⁴²GAO, *DOD Systems Modernization: Uncertain Joint Use and Marginal Expected Value of Military Asset Deployment System Warrant Reassessment of Planned Investment*, [GAO-06-171](#) (Washington, D.C.: Dec. 15, 2005).

Component Command and in the Joint Operations Fusion Center. U.S. Forces Korea officials said that finding the proper niche for Director of Mobility Forces-Surface is further complicated because the South Korean military is responsible for surface mobility of the Combined Forces on the Korean peninsula. During the 2007 exercise, the directorate was placed in the Combined Transportation Movement Center, which is co-chaired by the South Korean military.

Moreover, the initial assessment of the Director of Mobility Forces-Surface pilot in Kuwait by U.S. Transportation Command and U.S. Central Command indicated that the initiative faces a number of challenges related to (1) command and control, (2) availability of information technology tools, (3) securing personnel with the expertise and knowledge to use the information technology tools that are available, and (4) potential duplication of responsibilities with other Army organizations. More specifically, the assessment found that while the pilot had made progress, the Director of Mobility Forces-Surface:

- was assigned to the Coalition Forces Land Component Commander, whose authority is currently restricted to the Kuwait Joint Operations Area, which impedes a U.S. Central Command-wide focus on surface distribution;
- lacked adequate information technology tools to ensure the visibility of materiel in transit and availability of surface transportation assets required to optimize surface distribution across the theater;
- lacked personnel with the right skill sets or training to take advantage of the technology tools that were available; and
- provided functions that could overlap with those of the Army's 1st Theater Sustainment Command.

Regarding this last point, an Army analysis also showed a potential for duplication of efforts. Specifically, the Army reviewed 123 proposed responsibilities of the Director of Mobility Forces-Surface and found that most of the responsibilities are covered by the Army's sustainment commands and service component commands. The Army's analysis showed that most other proposed Director of Mobility Forces-Surface responsibilities were covered by the geographic combatant command.

The U.S. Transportation Command and U.S. Central Command's assessment also noted that "unity of effort" with regard to the Director of

Mobility Forces-Surface was lacking and that some key senior leaders had not yet embraced the initiative's capabilities. In response to the assessment, U.S. Central Command discontinued the pilot in May 2007, until some of these issues are resolved.

Consolidated Storage and Shipping Arrangements Have Been Implemented on a Limited Scale

DOD components have begun several initiatives to consolidate storage and shipping sites located in a joint theater, but these efforts have been implemented on a limited scale and we found potential opportunities for further consolidation during our fieldwork in Kuwait. DOD currently uses multiple storage and shipping sites within a theater to supply items to its customers. In some cases, these sites may carry the same supply items and ship to the same customers. Operating multiple sites requires additional facilities, personnel, contract services, and inventories and also results in extra movements of stock, inefficient use of surface and air distribution assets, increased opportunities for information processing errors, and the loss of asset visibility. Consolidating storage and shipping arrangements can help address these supply chain problems while at the same time reducing DOD's logistics footprint.

Consolidated Storage and Shipping Initiatives

DOD has developed initiatives to consolidate and improve storage and shipping of materiel, including Node Management and Deployable Depot, Joint Regional Inventory and Material Management, and Theater Consolidation and Shipping Point. Node Management and Deployable Depot is a DLA initiative to develop a small-scale, rapidly deployable distribution center that has the capability to provide consolidated shipping, receiving, cross-docking, storage, communication, and order processing. The initiative, which is in the early stages of development and testing, is aimed at improving the flow of logistics information along the supply chain and also providing efficient physical management of materiel in the theater of operations. To deploy this capability to a theater, DLA would send trained personnel, information technology systems, portable structures, and materiel handling equipment. DLA is collaborating with U.S. Transportation Command to establish a close association between Node Management and Deployable Depot and Joint Task Force-Port Opening. Supply items off-loaded by the port opening unit could be moved to the DLA depot located within 10 kilometers away. The two organizations plan to write this relationship into the concepts of operations for both initiatives. U.S. Pacific Command is the operational manager for Node Management and Deployable Depot, providing the location for upcoming exercises to prepare for operations that would be carried out in an austere location. The initiative is currently undergoing

tests of both its information technology and materiel management capabilities.

A second consolidation initiative is Joint Regional Inventory and Material Management, which is aimed at streamlining the storage and distribution of common items for multiple military service locations in a region from a DLA hub. The objectives of Joint Regional Inventory and Material Management include eliminating duplicate materiel handling and inventory layers. The pilot program for the Joint Regional Inventory and Material Management initiative in Hawaii has been completed and shows promise to improve joint theater logistics, but some funding and metrics issues are still being addressed. DOD has met key milestones in this initiative, and officials in U.S. Pacific Command reported that they had reduced redundant service-managed inventories, the number of times they handle parts, and customer wait times over the course of the pilot. When the services stock fewer items, they also have more efficiency in storage, and U.S. Pacific Command officials estimated that the services had reduced their inventory levels by more than \$10 million.⁴³ A related activity included in the initiative is the development of a Web site for hazardous materials that would allow the services to share and view data on available hazardous inventories, enabling them to make arrangements with the other services to reuse items and save on waste disposal costs. Another related activity is an ongoing effort to establish a joint shipment manager to provide expedited and scheduled deliveries to move items from the DLA hub to the requesting units. U.S. Pacific Command officials told us that they plan to roll out Joint Regional Inventory and Material Management to other DLA depots in the command's area of operations, and they plan to establish this arrangement next in Okinawa and Guam. U.S. Pacific Command has established a working group that is addressing some issues such as tracking demand histories for multiple requests and deployed units and determining appropriate metrics to ensure that DLA has the assets available when the services require them. Officials we spoke with believe Joint Regional Inventory and Material Management has the potential to improve joint theater logistics by having common assets available close to where they are needed and under the control of DLA, freeing military service personnel to focus on service-specific assets and their warfighting missions.

⁴³Stockage levels for Joint Regional Inventory and Material Management are based on the number of demands placed on a part per year, and a minimum of four demands was required for an item to be included in the pilot.

A third consolidation initiative we found during our review is the establishment of Theater Consolidation and Shipping Points. DLA, in coordination with the Army, has opened Theater Consolidation and Shipping Points within the U.S. European Command and U.S. Central Command geographic regions. The goal for these consolidated facilities is to improve the overall efficiency and interoperability of materiel consolidation and shipping activities. The Theater Consolidation and Shipping Points operate under memoranda of agreement between DLA and each of these combatant commands. DLA is validating its template for the Theater Consolidation and Shipping Point, which is the first step in creating a doctrinal organization, according to DLA officials.

The Theater Consolidation and Shipping Point in the U.S. European Command opened in October 2006, and is collocated at DLA's Defense Distribution Depot-Europe in Germersheim, Germany. The creation of this consolidated activity was part of the Army's plan for managing a reduction in personnel in Europe, which included divesting itself of noncore activities and focusing on its warfighting functions. The DLA organization took over distribution functions that had been performed by the Theater Distribution Center, which was operated by the Army's 21st Theater Support Command at Panzer Kaserne, Germany. These functions include breaking bulk materiel for multiple customers, consolidating materiel for shipment to individual units, marking pallets and containers with radio frequency identification tags, and preparing them for onward shipment to customers. The Army agreed to fund the realignment of the Theater Distribution Center's functions to DLA by transferring \$1.6 million each fiscal year for fiscal years 2007 and 2008, and then realigning funding directly to DLA beginning in fiscal year 2009. According to the Commander of the Defense Distribution Depot-Europe, the Theater Consolidation and Shipping Point will serve as the primary conduit for theater sustainment distribution from multiple sources, including materiel entering the theater at Ramstein Air Base and the Germersheim Rhine River terminal. He said collocating the Theater Consolidation and Shipping Point with the DLA Defense Distribution Depot will improve the overall efficiency of theater distribution activities by making better use of DLA's existing distribution infrastructure, including its information technology systems, and will capitalize on DLA's core competencies of receiving, storing, and shipping materiel. According to the Commander, specific benefits have included estimated annual cost savings of approximately \$700,000 and a reduction in full-time equivalent employees from 56 to 19. At the time of our visit, the activity had been operating for less than a week; consequently, our review was limited to briefings and a tour of the operations and processes at the

facilities in Germersheim, Germany. Therefore, we did not validate the claimed benefits.

In U.S. Central Command, the Theater Consolidation and Shipping Point was established in February 2006 when DLA took over theater distribution functions from an Army-operated Theater Distribution Center in Kuwait. The Theater Distribution Center had previously been relocated to Camp Arifjan from just outside Camp Doha when Camp Doha closed in 2005. According to DLA officials, the Army and DLA agreed to transfer operations to DLA in December 2005, and DLA began operations in February 2006. The facility is contractor-operated at an annual cost of approximately \$7.9 million. The transfer of operations to DLA was aimed at capitalizing on the agency's materiel consolidation and shipping expertise, streamlining the distribution process by linking the distribution depot and the consolidation and shipping operations under DLA management, and improving asset visibility by installing DLA's standard distribution information system at the consolidation and shipping point.

Additional Opportunities for Consolidating Shipping and Storage

During our fieldwork in Kuwait, we found that additional opportunities may exist for consolidating storage and shipping activities. Unlike the consolidation and shipping point in Europe, the Kuwait activity is not collocated with the DLA Defense Distribution Depot and therefore lacks the efficiencies from combining operations available at the European activity. Moreover, the Army continues to operate a general support warehouse at Camp Arifjan that is separate from the DLA Theater Consolidation and Shipping Point. Based on our visits to these facilities and discussions with officials, we believe there are potential opportunities to improve joint theater distribution processes and sustainment operations through further consolidation, relocation, and streamlining of distribution operations and processes. Some potential improvements that might be achieved are:

- reducing contract and contract administration costs;
- maximizing use of pure pallets, thereby making more efficient use of airlift capability and reducing customer wait time;
- eliminating redundant warehouse functions and substandard warehouse facilities;
- freeing up government-owned containers for use in repacking materiel intended for units in Iraq; and

-
- consolidating materiel processing points, thereby reducing the potential for errors in information technology and the loss of asset visibility.

The DLA Defense Distribution Depot is a contractor-owned and operated facility located in the Mina Abdullah Complex, a private industrial park located approximately 14 kilometers outside Camp Arifjan. The current annual contract cost for the distribution depot is approximately \$37.1 million. The distribution depot carries out similar receiving, storage, packing, and shipping functions as the Theater Consolidation and Shipping Point, and these facilities serve the same customer base. For example, each facility pure packs air pallets to be flown out of Ali Al Salem Air Base to units in Iraq, Afghanistan, and the Horn of Africa. According to the distribution depot director, the depot is having difficulty packing pure pallets to capacity and consequently is not maximizing use of airlift capability. The depot's goal is to hold air pallets for up to 24 hours in hopes of packing a pure pallet. However, if the pallet is not completely pure packed within the 24-hour hold period, it must be airlifted anyway in order to meet customer wait time standards. DLA officials told us that by collocating the consolidation and shipping point with the distribution depot, they could more quickly build fewer and larger air pallets, which would maximize the use of airlift capacity and reduce customer wait time.

The Army's general support warehouse at Camp Arifjan also performs materiel receiving, storage, and shipping functions. The Army warehouse is in poor condition, is poorly lighted, and has little climate-controlled space. It operates at capacity and has some of its inventory stored outside in government-owned containers or on the bare ground and exposed to the elements (see fig. 3). The DLA Defense Distribution Depot, in contrast, appears to be a modern warehouse with approximately a million square feet of covered warehouse space, much of which is climate controlled, and another million square feet of hard surface (asphalt) outside storage space for containers (see fig. 4).

Figure 3: Views of Container and Yard Storage at Army General Support Warehouse, Camp Arifjan, Kuwait (October 2006)



Source: GAO.

Figure 4: Exterior and Interior Views of Warehouses at the DLA Distribution Depot, Kuwait (October 2006)



Source: GAO.

According to DLA officials, the distribution depot has sufficient capacity to absorb the Army general support warehouse workload and already manages 920 Army-specific items. Consolidating the Army warehouse inventory at the DLA distribution depot would likely produce efficiencies through economies of scale, reducing the overall cost of receiving, storage, and shipping, and also eliminate the need to upgrade the substandard Army warehouse on Camp Arifjan. Consolidating the Army general support inventory at the DLA depot would also free up government-owned containers currently used for general warehouse storage. Government-owned containers are needed to support seaport operations for repacking materiel to send to Iraq from commercial containers, and they are in short supply in Kuwait.

U.S. Central Command has directed that only government-owned containers be sent into Iraq to prevent the accumulation of detention charges on commercial containers. According to 831st Transportation Battalion officials responsible for port operations, government-owned containers sent to Camp Arifjan are seldom returned to the port to support container cross-loading operations. Army general support warehouse officials told us that when they are directed to give up government-owned containers to support port operations, they often have no place to put the materiel stored inside the container, which forces them to store some inventory on the bare ground. Having adequate space to store inventory at the DLA distribution depot would reduce the need to use government-owned containers as storage space, thereby supporting container cross-loading operations at the port, and would reduce the need to place inventory on the ground and exposed to the elements.

The Army general support warehouse, DLA Theater Consolidation and Shipping Point, and DLA Defense Distribution Depot, Kuwait all exist to support essentially the same units in Iraq with regard to receiving, storing, and shipping sustainment materiel. According to DLA officials, consolidating these operations at the DLA Defense Distribution Depot would help to improve asset visibility by reducing the number of materiel processing points, and thereby the potential for errors in inputting data into information technology systems. Under such a consolidation, only one organization would be applying radio frequency identification tags to containers and entering data into the joint in-transit visibility systems, which are tasks that DLA officials consider to be among the agency's core competencies.

In discussing our observations with Coalition Forces Land Component Command officials, they generally agreed about the potential for

consolidating storage and shipping arrangements and stated that the conditions needed to be thoroughly assessed and workable recommendations developed. These officials noted two obstacles that would have to be overcome. First, the Army had already purchased its general support inventory and wanted to be reimbursed for inventory transferred back to DLA. Second, the Directorate of Security Plans and Operations, within the Army's Area Support Group in Kuwait, had assessed the Mina Abdullah Complex as too great a security risk for relocating the operations from Camp Arifjan. In January 2007, subsequent to our visit to Kuwait, the directorate completed a new force protection assessment of the Mina Abdullah Complex. According to DLA officials, this new assessment leaves open the possibility of moving the Theater Consolidation and Shipping Point and the Army general support warehouse to the distribution depot if certain deficiencies are adequately addressed. In March 2007, the DLA Defense Distribution Center directed a study team to conduct an analysis of major theater receipt, storage, and distribution nodes and processes in U.S. Central Command. In April 2007, the study team briefed the Distribution Process Owner Executive Board on the results of its assessment, which included recommendations to terminate the Theater Consolidation and Shipping Point contract and assume these functions at the defense distribution depot and to draw down inventory and operations at the Army general support warehouse at Camp Arifjan.

Command and Control Over Joint Logistics Functions Remains Unresolved

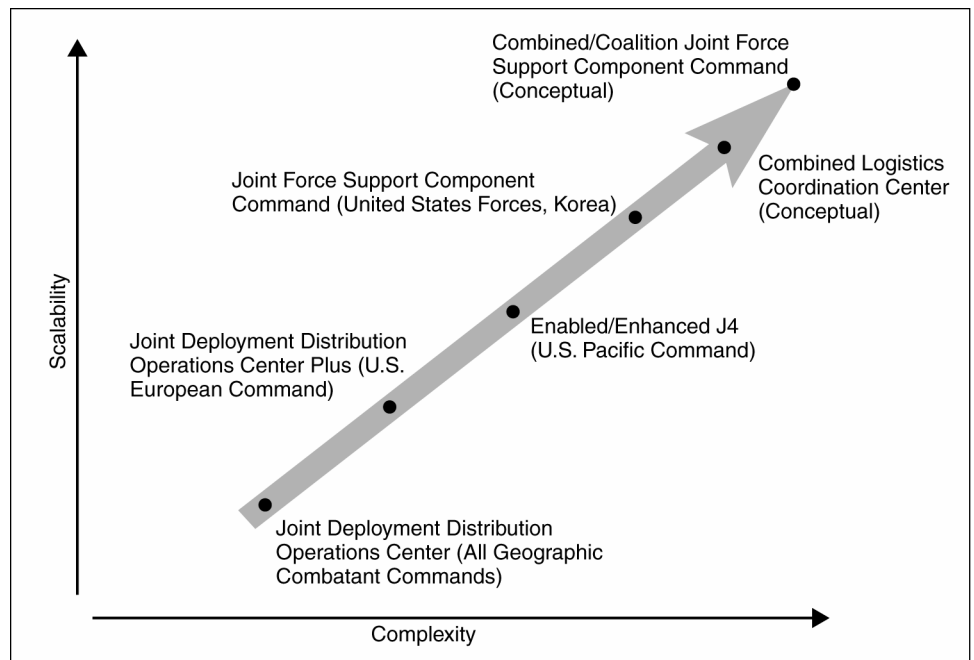
Command and control over joint logistics functions has been a concern due to past challenges with directing and coordinating logistics resources and systems within a theater of operations. In past combat operations, joint forces dispersed over a large area of operations placed significant demands on the ability of the joint force commander to provide, manage, and prioritize logistics support. For example, although the combatant commander has directive authority for logistics, existing capabilities and processes limit the ability to exercise this authority. In 1997, DOD identified command and control as a key focus area of joint theater logistics in order to prioritize and allocate scarce resources, determine how services can share existing assets and capabilities in theater, and eliminate redundancies and excess capabilities. Additionally, officials at U.S. Pacific Command explained that senior military leaders have indicated that they want a single point of contact for all logistics information in theater. Officials at U.S. Central Command stated that clear lines of command and control, in addition to improved asset visibility, are currently needed to advance joint theater logistics.

Several Command and Control Options Have Emerged

The joint theater logistics initiatives we reviewed all include organizational structures intended to provide command and control over all or part of logistics functions under the combatant commander's control. In addition to the initiatives discussed earlier in this report, U.S. Joint Forces Command is coordinating the Joint Experimental Deployment and Support initiative.⁴⁴ The objective of this initiative is to experiment with a range of command and control options that can provide logistics coordination, integration, and synchronization to meet the combatant commander's priorities. The initiative builds upon DOD's Joint Deployment Distribution Operations Center concept and progresses along a continuum to include more robust organizational options. According to U.S. Joint Forces Command, the different options in the continuum would allow a combatant commander to select a flexible capability and tailor it to suit the size and complexity of a mission. The options along this continuum are displayed in figure 5.

⁴⁴U.S. Joint Forces Command is the DOD executive agent for joint warfighting experimentation, making it responsible for conducting joint experimentation on new warfighting concepts and disseminating the results of these activities to the joint concept community.

Figure 5: Continuum of Logistics Command and Control Options Included in the Joint Experimental Deployment and Support Initiative



Source: U.S. Joint Forces Command.

Note: Scalability refers to the breadth, depth, numbers of nations, and size of the joint operations areas. Complexity is determined by the geography of the theater, number of distribution nodes, and rapid deployment, among other factors.

The Joint Deployment Distribution Operations Center Plus, which is on the lower end of the Joint Experimental Deployment and Support continuum, is being tested in U.S. European Command. The command's Joint Deployment Distribution Operations Center currently has day-to-day responsibilities that it handles with a staff of 55. For a contingency operation, this organization could be upgraded to the Joint Deployment Distribution Operations Center Plus, with additional staff augmentation from the command's logistics directorate, military services, and other DOD components. U.S. European Command is drafting standard operating procedures for the Joint Deployment Distribution Operations Center Plus. According to command officials, the Joint Deployment Distribution Operations Center Plus may be included in DOD's updated template for the Joint Deployment Distribution Operations Center, which is due in August 2007.

The Enabled/Enhanced J4,⁴⁵ which is being tested and developed in U.S. Pacific Command, is the next organizational option on the Joint Experimental Deployment and Support continuum. According to command officials, the Enhanced J4 is activated during contingencies and includes U.S. Pacific Command's Joint Deployment Distribution Operations Center and a fusion cell, which is a 4-person group that pulls together and filters information for the J4. While U.S. Pacific Command's Joint Deployment Distribution Operations Center is run by a staff of 5 for day-to-day operations, during a contingency the organization would be augmented to support the Enhanced J4 with a staff of up to 64. U.S. Pacific Command is currently developing standard operating procedures and joint mission-essential tasks for this new capability.

The Joint Force Support Component Command is the most robust continuum option being evaluated. This organization is designed to provide a single theater logistics command with enhanced joint capabilities to identify theater logistics shortfalls, prioritize shortfalls, and direct theater logistics resources. The Commander, U.S. Forces Korea, has stated that the Joint Force Support Component Command will be the logistics command and control structure for any future contingency operations in Korea. The Army's 19th Expeditionary Sustainment Command in Korea serves as the headquarters for the Joint Force Support Component Command, which will be augmented by integrating staff from other components in Korea, the Pacific Command's Joint Deployment Distribution Operations Center-Korea, DLA, and the Director of Mobility Forces-Surface. The Joint Force Support Component Command has been tested in two exercises—Reception, Staging, Onward Movement and Integration and Ulchi Focus Lens—and U.S. Forces Korea officials are currently involved in the Senior Leader Seminar as part of the high-level process to discuss the next iteration and iron out the roles and responsibilities of the Joint Force Support Component Command. U.S. military officials in Korea explained that the future goal is to merge the Joint Force Support Component Command into a joint logistics command.

The Joint Experimental Deployment and Support continuum shows two other command and control options that could support more complex operations. These options are the Combined Logistics Coordination Center

⁴⁵ J4 designates the logistics directorate or section of a joint staff. U.S. Joint Forces Command refers to this option as the Enabled J4, and U.S. Pacific Command calls it the Enhanced J4.

Command and Control Issues Have Not Been Resolved

and the Combined/Coalition Joint Force Support Component Command. However, DOD has not defined, developed, or tested these options.

Despite the development of these new organizations designed to offer robust logistics command and control capabilities, our discussions with officials from the combatant commands and the military services revealed unresolved issues related to exercising joint command and control over logistics functions in a theater of operations. For example, some military services have indicated that they would not support the establishment of a Joint Force Support Component Command in other geographic combatant commands, leaving the future of this initiative in question. A number of officials had concerns about how organizations such as the Joint Force Support Component Command would be staffed and what roles and authorities it would have. Specifically, they mentioned (1) statutory requirements for logistics support, (2) directive authority for logistics, and (3) operational and financial considerations.

Although the Joint Force Support Component Command is still in an experimentation phase, there has been resistance from the services to its future implementation. The Air Force, for example, has stated that, while the Joint Force Support Component Command might work for the size and scale of operations in the Korean theater, DOD should be cautious about adopting it as a model across all combatant commands. The services have expressed concerns about mandating that they provide staff to the Joint Force Support Component Command, while also fulfilling their Title 10 responsibilities to man, train, and equip their forces.⁴⁶ The Marine Corps said this would hinder its ability to provide logistics support to its own tasked missions and to deploy in a “lean” condition. Officials from military service components in the geographic combatant commands also raised the issue of having a service component take direction from a separate component command at the same level, rather than from a higher level command, and they were resistant to losing personnel to such an organization because the service component commands still have tactical logistics responsibilities to fulfill. While the Navy has not provided an official position on the Joint Force Support Component Command, Navy officials told us they did have some concerns with the initiative and that one disadvantage of a single logistics command is that it separates logistics from operations instead of keeping both functions under the same operational commander they are designed to support.

⁴⁶See 10 U.S.C. §§ 3013, 5013, and 8013.

Some military service officials we interviewed raised questions about the effectiveness of a Joint Force Support Component Command that lacked an ability to exercise directive authority for logistics. Directive authority for logistics gives the combatant commander the ability to shift logistics resources within the theater in order to accomplish a mission.⁴⁷ While DOD doctrine states that directive authority for logistics may be delegated to a subordinate commander, such as a joint force commander or service component commander,⁴⁸ officials we interviewed did not believe directive authority for logistics could be delegated below that level of command to an entity such as the Joint Force Support Component Command. Without this authority, some military service officials question how the Joint Force Support Component Command differs from other logistics command and control organizations if the organization can make recommendations to the joint force commander but not actually direct the transfer of assets across the service components, known as cross-leveling. For example, officials in U.S. Pacific Command stated that the Joint Force Support Component Command faced challenges when trying to release joint logistics tasking orders during the exercises because it could not resolve issues with the service components. They believed that the role of the organization should be to coordinate with the services to deconflict and prioritize support to the next campaign rather than address problems at the tactical level. Since directive authority for logistics still resides with the joint force commander, the Joint Force Support Component Command does not provide any additional authorities; therefore, some officials argued that its functions could be accomplished with an organization such as U.S. Pacific Command's Enhanced J4.

There are also readiness and financial considerations related to exercising directive authority for logistics. In this process, the component commanders provide input as to what they can support. There are military operational risks and trade-offs associated with cross-leveling, because assets diverted from one unit to support another unit may affect the giving organization's ability to conduct a future operation. Officials raised concerns that logisticians in a separate logistics command may not fully

⁴⁷Under 10 U.S.C. §164, unless otherwise directed by the President or the Secretary of Defense, the authority, direction, and control of the commander of a combatant command with respect to the commands and forces assigned to that command include giving authoritative direction to subordinate commands and forces necessary to carry out missions assigned to the command, including authoritative direction over all aspects of military operations, joint training, and logistics.

⁴⁸JCS Pub 4-0 (Apr. 6, 2000), p. I-3.

understand the impact of cross-leveling on the next military mission. Additionally, because the services obtain funding for their own assets, several officials told us that some form of financial reconciliation must be considered when exercising directive authority for logistics. Thus, any assets provided from one service to another must be accounted for and later replaced or reimbursed. Because of these financial considerations, some military service component officials believed that joint funding is necessary to support joint operations.

Issues related to joint command and control over logistics in theater are not limited to the Joint Force Support Component Command organization. For example, another joint theater logistics initiative, the Theater Sustainment Command, also faces some logistics command and control challenges. As discussed earlier in this report, the Theater Sustainment Command is an Army logistics command and control organization that is being developed to streamline logistics support as part of Army modularity. The Theater Sustainment Command, however, is also being developed as a “joint-capable” headquarters that becomes a joint organization in a theater of operations with the addition of augmentees from the military services and other DOD agencies. Its joint-capable designation raises the same issues as the Joint Force Support Component Command regarding staffing, roles, and authorities. In addition to the current uncertainty over who exercises control over the Theater and Expeditionary Sustainment Commands, there would be added the question of where these organizations would fit into the theater. Further, some military service component officials questioned whether using these Army organizations in their joint command and control capacities would lessen their ability to perform Army-specific tasks. Until lines of command and control are clearly defined for these new organizations, joint force commanders will continue to face challenges in directing and coordinating logistics resources within a theater of operations.

Conclusions

Joint theater logistics has the potential to address long-standing issues associated with visibility and distribution of assets within a theater of operations, which is a critical step toward overall improvements in supply chain management and support to the warfighter. While several initiatives developed by different DOD components show promise in improving the joint force commander’s ability to see emerging logistics requirements and rapidly respond to them, these initiatives have been fragmented across the department due to the lack of a coordinated and comprehensive management approach. Moreover, the diffused organization of DOD’s logistics operations, including separate funding and management of

resources and systems, complicates DOD's ability to adopt such an approach to developing and implementing joint theater logistics capabilities. Transformational changes in DOD's organization—such as those proposed by a number of organizations that believe DOD should move toward a more integrated logistics system and change how it controls and allocates logistics funding—could potentially require changes to existing laws, such as Title 10. Another factor that has hindered adoption of a more coordinated and comprehensive approach to joint theater logistics has been changes with respect to DOD's overall logistics transformation strategy. Without a coordinated and comprehensive management approach, DOD may have difficulty addressing the challenges discussed in this report, including determining roles and responsibilities for DOD's port opening capability, addressing asset visibility issues caused by noninteroperable information technology systems, resolving disagreements on roles for coordinating surface transportation, making more use of opportunities to consolidate storage and shipping activities in Kuwait, and clarifying command and control over theater logistics functions. Moreover, without a coordinated and comprehensive management approach, DOD is not in a position to effectively coordinate the initiatives across the department, guard against potential duplication of effort, and prioritize initiatives to make decisions on how best to target its resources.

Recommendations for Executive Action

To improve logistics and supply chain operations, we recommend that the Secretary of Defense direct the Under Secretary of Defense (Acquisition, Technology, and Logistics), in his capacity as the Defense Logistics Executive, to develop and implement a coordinated and comprehensive management approach to guide and oversee efforts across the department to improve distribution and supply support for U.S. forces in a joint theater. This approach should encompass sound management principles, including developing specific strategies and goals, assigning accountability for achieving results, and using outcome-oriented performance measures, and should be aligned with the results of the ongoing joint capabilities portfolio management test, the proposed realignment of focused logistics capabilities, and the development of a "to be" roadmap. In considering options for implementing this recommendation, the Under Secretary should determine whether any changes should be made to DOD's organizational structure and control of resources for joint logistics support and identify the steps needed to make these changes, including changes to existing laws, such as Title 10.

To make more economical and efficient use of shipping and storage facilities, we recommend that the Secretary of Defense direct the Director, DLA, to evaluate existing storage and shipping arrangements within the geographic combatant commands and identify opportunities for consolidation.

Agency Comments and Our Evaluation

In its written comments on a draft of this report, DOD concurred with both of our recommendations. DOD also provided technical comments that we incorporated as appropriate. The department's response is reprinted in appendix I.

In response to our recommendation for developing and implementing a coordinated and comprehensive management approach to improving distribution and supply support in a joint theater, DOD stated that the Deputy Secretary of Defense is leading initiatives in portfolio management, the Defense Logistics Executive (DLE) is focusing on Joint Logistics portfolio management, Joint Staff (J4) is updating the Joint Logistics Joint Functional Concept, and the Deputy Under Secretary of Defense (Logistics and Materiel Readiness) is developing the logistics strategy and roadmap, which are to be completed by summer 2008. While we acknowledge these steps that DOD is taking to improve distribution and supply support for U.S. forces in a joint theater as a good start, we continue to believe that as DOD develops and implements a comprehensive management approach that is coordinated across the department, DOD needs to incorporate the sound management principles we describe in this report. Again, in considering options for implementing this recommendation, the Under Secretary should determine whether any changes should be made to DOD's organizational structure and control of joint logistical support, and identify steps needed to make these changes, including changes to existing laws, such as Title 10. We are reemphasizing these two matters because DOD did not specifically address them in its comments to our recommendations.

Regarding our recommendation that the Secretary of Defense direct the Director, Defense Logistics Agency, to evaluate existing storage and shipping arrangements within the geographic combatant commands and identify opportunities for consolidation, DOD stated that it plans to complete such an evaluation by the summer of 2008. We believe this action, if implemented, will be responsive to our recommendation.

Scope and Methodology

To assess DOD's approach to managing joint theater logistics, we identified sound management principles based on prior work on organizational transformation and federal agency implementation of the Government Performance and Results Act.⁴⁹ We also reviewed doctrine, regulations, guidance, plans, briefings, status reports, and other documents related to the development of joint theater logistics, logistics strategic planning, and supply chain management. This review included reports by various audit and non-audit organizations that have assessed DOD's logistics organization. While we examined the recommendations proposed by these organizations, the scope of our review did not include an assessment of these proposals or what changes, if any, would require congressional action. Additionally, we interviewed officials from the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics) and the Joint Staff Logistics Directorate who are involved in joint theater logistics and logistics transformation. Over the course of these visits and interviews, we obtained pertinent information on the status of DOD's efforts in support of joint theater logistics, such as the "as is" Focused Logistics Roadmap, the "to be" roadmap, and the supply chain management improvement plan. We reviewed the draft joint theater logistics white paper, implementation plan, and capability process analyses. We also examined DOD's overall efforts to institute a long-term logistics strategy, reviewing strategic planning documents such as vision statements, joint doctrine, campaign plans, and roadmaps that have addressed DOD's future logistics systems. We discussed the capabilities portfolio management test case with OSD and Joint Staff personnel. Additionally, we interviewed officials from the Joint Staff, U.S. Transportation Command, combatant commands, DLA, the military services, and selected reserve components to get their perspectives on joint theater logistics.

To obtain information on DOD's progress in implementing joint theater logistics initiatives, we reviewed DOD, Joint Staff, and military service guidance, concepts, directives, briefings, status reports, and other pertinent documentation related to the development of these initiatives. To identify the status of initiatives DOD is working on to address joint theater logistics, we focused on the four initiatives highlighted in the "as is" roadmap in support of joint theater logistics: Joint Deployment

⁴⁹See GAO, *Results-Oriented Cultures: Implementation Steps to Assist Mergers and Organizational Transformations*, [GAO-03-669](#) (Washington, D.C.: July 2, 2003), and GAO, *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, [GAO-06-15](#) (Washington, D.C.: Oct. 21, 2005).

Distribution Operations Center, Director of Mobility Forces-Surface, Joint Experimental Deployment and Support, and Theater Sustainment Commands. We conducted interviews and obtained information on these initiatives from U.S. Transportation Command, U.S. Joint Forces Command, and the Army's G-4 logistics directorate. In addition, we also looked at four other initiatives related to providing support to the joint force commander: Joint Task Force-Port Opening, Node Management and Deployable Depot, Theater Consolidation and Shipping Points, and Joint Regional Inventory and Material Management. Because these initiatives have been recently implemented or are still in the testing stages, in some cases we were able to obtain only limited data on their effectiveness, and we did not independently validate these data. To obtain information on specific initiatives, we interviewed officials from U.S. Transportation Command and two of its components, Air Mobility Command and the Military Surface Deployment and Distribution Command; U.S. Joint Forces Command; DLA; U.S. Army Combined Arms Support Command; the military services; and selected reserve components. Additionally, we visited and interviewed officials in the five geographic combatant commands: U.S. Central Command, U.S. European Command, U.S. Northern Command, U.S. Pacific Command, and U.S. Southern Command. We also met with military service component commands in U.S. Central Command, U.S. European Command, and U.S. Pacific Command and with operational units in Germany, Korea, and Kuwait. Because several of the newly developed initiatives are being tested in the Korean theater of operations, we visited the subordinate unified command in Korea to discuss their experiences and challenges in implementing joint theater logistics. We attended the out-brief for an Army conference on theater opening, reviewed after-action reports from exercises that tested the initiatives, and analyzed lessons learned reports from Operation Iraqi Freedom. To assess the reliability of the container management system data, we interviewed Container Management Element officials at Camp Arifjan, Kuwait, about the internal controls and reliability of the system. We determined that the data were sufficiently reliable for our purposes. We conducted our review from July 2006 to April 2007 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Secretary of Defense; the Under Secretary of Defense (Acquisition, Technology, and Logistics); the Chairman of the Joint Chiefs of Staff; the Director, DLA; the Director, Office of Management and Budget; and other interested parties. This report will also be available at no charge at our Web site at <http://www.gao.gov>. Contact points for our Offices of Congressional

Relations and Public Affairs may be found on the last page of this report. Should you or your staff have any questions concerning this report, please contact me at (202) 512-8365 or solisw@gao.gov. Key contributors to this report are listed in appendix II.

A handwritten signature in black ink, appearing to read 'W. Solis', with a long horizontal flourish extending to the right.

William M. Solis
Director, Defense Capabilities and Management

Appendix I: Comments from the Department of Defense



DEPUTY UNDER SECRETARY OF DEFENSE FOR
LOGISTICS AND MATERIEL READINESS
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

JUN 21 2007

Mr. William M. Solis
Director, Defense Capabilities and Management
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Mr. Solis:

This is the Department of Defense (DoD) response to the GAO Draft Report, GAO-07-807, "DEFENSE LOGISTICS: Efforts to Improve Distribution and Supply Support for Joint Military Operations Could Benefit from a Coordinated Management Approach," dated May 22, 2007 (GAO Code 350907). The Department concurs with the recommendations.

Detailed comments on the draft report recommendations are included in the enclosure. The DoD appreciates the opportunity to comment on the draft report. My point of contact for this matter is Mr. Don Davidson, 703-614-6922, don.davidson@osd.mil.


Jack Bell

Enclosure:
As stated



GAO DRAFT REPORT – DATED MAY 22, 2007
GAO CODE 350907/GAO-07-807

"DEFENSE LOGISTICS: Efforts to Improve Distribution and Supply Support for Joint Military
Operations Could Benefit from a Coordinated Management Approach"

DEPARTMENT OF DEFENSE COMMENTS
TO THE RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommends that the Secretary of Defense direct the Under Secretary of Defense (Acquisition, Technology, and Logistics), in his capacity as the Defense Logistics Executive, to develop and implement a coordinated and comprehensive management approach to guide and oversee efforts across the Department to improve distribution and supply support for U.S. forces in a joint theater. This approach should encompass sound management principles, including developing specific strategies and goals, assigning accountability for achieving results, and using outcome-oriented performance measures, and should be aligned with the results of the ongoing joint capabilities portfolio management test, the proposed realignment of focused logistics capabilities, and the development of a "to be" focused logistics roadmap. In considering options for implementing this recommendation, the Under Secretary should determine whether any changes should be made to DoD's organizational structure and control of resources for joint logistics support, and identify the steps needed to make these changes, including changes to existing laws, such as Title 10.

DOD RESPONSE: DoD CONCURS.

The Deputy Secretary of Defense is leading initiatives in portfolio management, the Defense Logistics Executive (DLE) is focusing on Joint Logistics portfolio management, Joint Staff (J4) is updating the Joint Logistics Joint Functional Concept and the Deputy Under Secretary of Defense (Logistics & Materiel Readiness) is developing the Logistics Strategy and Roadmap, to be completed by Summer 2008,

RECOMMENDATION 2: The GAO recommends that the Secretary of Defense direct the Director, Defense Logistics Agency, to evaluate existing storage and shipping arrangements within the geographic combatant commands and identify opportunities for consolidation

DOD RESPONSE: DoD CONCURS.

DoD plans to complete an evaluation of existing storage and shipping arrangements within the geographic combatant commands and identify opportunities for consolidation by Summer 2008.

Appendix II: GAO Contact and Staff Acknowledgments

GAO Contact

William M. Solis (202) 512-8365

Acknowledgments

In addition to the contact named above, key contributors to this report were Karyn Angulo, Alissa Czyz, Maria Gomez, Thomas Gosling, Brian Howell, and Larry Juneek.

GAO's Mission

The Government Accountability Office, the audit, evaluation and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday, GAO posts newly released reports, testimony, and correspondence on its Web site. To have GAO e-mail you a list of newly posted products every afternoon, go to www.gao.gov and select "Subscribe to Updates."

Order by Mail or Phone

The first copy of each printed report is free. Additional copies are \$2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

U.S. Government Accountability Office
441 G Street NW, Room LM
Washington, D.C. 20548

To order by Phone: Voice: (202) 512-6000
TDD: (202) 512-2537
Fax: (202) 512-6061

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm

E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Gloria Jarmon, Managing Director, JarmonG@gao.gov (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, D.C. 20548

Public Affairs

Paul Anderson, Managing Director, AndersonP1@gao.gov (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, D.C. 20548